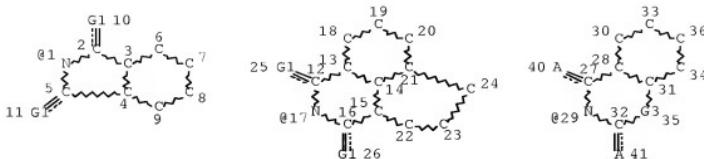


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L5

STR



G2 42

VAR G1=0/S
 VAR G2=1/17/29
 VAR G3=0/S/N/C
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 MLEVEL IS CLASS AT 22 23 24 40 41
 DEFAULT ECLEVEL IS LIMITED
 ECOUNT IS UNLIMITED AT 22 23 24 40 41

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE

L7	9572	SEA FILE=REGISTRY ABB=ON	PLU=ON	591.160/RID
L8	261285	SEA FILE=REGISTRY ABB=ON	PLU=ON	333.79/RID
L9	2056	SEA FILE=REGISTRY ABB=ON	PLU=ON	591.266/RID
L10	348787	SEA FILE=REGISTRY ABB=ON	PLU=ON	591.100/RID
L11	262078	SEA FILE=REGISTRY ABB=ON	PLU=ON	591.50/RID
L12	22679	SEA FILE=REGISTRY ABB=ON	PLU=ON	1784.14/RID
L14	902437	SEA FILE=REGISTRY ABB=ON	PLU=ON	(L7 OR L8 OR L9 OR L10 OR L11 OR L12)
L16	272323	SEA FILE=REGISTRY SUB=L14	SSS FUL L5	
L18	2845	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L16/D OR L16/DP
L20	7	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 (L) PHENOLIC?
L21	4964	SEA FILE=HCAPLUS ABB=ON	PLU=ON	"PHENOLIC RESINS, PROPERTIES"+PFT,NT/CT
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L23	852	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND PRP/RL
L24	12	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L23 AND LITHOG?
L25	9	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 (L) PHENOL?
L26	156	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND PHENOL?
L27	4	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L26 AND LITHOG?
L28	23	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L20 OR L22 OR L24 OR L25 OR L27
L29	4	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 (L) NOVOLAK?
L30	20	SEA FILE=HCAPLUS ABB=ON	PLU=ON	L18 AND NOVOLAK?
L31	4462	SEA FILE=HCAPLUS ABB=ON	PLU=ON	"POSITIVE PHOTORESISTS"+PF T, NT/CT
L32	19964	SEA FILE=HCAPLUS ABB=ON	PLU=ON	"PRINTING PLATES"+PFT, NT/C T

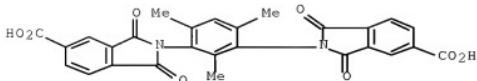
L33 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (L31 OR L32)
 L34 55 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 OR L29 OR L30 OR L33
 L35 36 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 AND (1840-2003)/PRY,A
 Y,PY
 L36 496 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND POLYMER?/SC,SX
 L37 638 SEA FILE=HCAPLUS ABB=ON PLU=ON L18(L)PRP/RL
 L38 230 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND L36
 L39 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND L31
 L40 0 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND L32
 L41 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND LITHOG?
 L42 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND ?RESIST?
 L43 26 SEA FILE=HCAPLUS ABB=ON PLU=ON (L39 OR L40 OR L41 OR
 L42)
 L44 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 AND (1840-2003)/PRY,A
 Y,PY
 L45 53 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 OR L44

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L45 ANSWER 1 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:929877 HCAPLUS Full-text
 DOCUMENT NUMBER: 1421177748
 TITLE: Novel poly(amide-imide) having high heat-
 resistance and low insulation property by
 using 1,5-bistrimellitimido-2,4,6-trimethyl
 benzene and process for producing the same
 INVENTOR(S): Han, Hak Soo; Lee, Chun Geun; Lee, Chung Bong;
 Min, Gyeong Uk
 PATENT ASSIGNEE(S): S. Korea
 SOURCE: Repub. Korean Kongkiae Taeho Kongbo, No pp. given
 CODEN: KRXXA7
 DOCUMENT TYPE: Patent
 LANGUAGE: Korean
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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KR 2002078871	A	20021019	KR 2001-19134 <--	20010411
PRIORITY APPLN. INFO.:			KR 2001-19134 <--	20010411

ED Entered STN: 04 Nov 2004
 AB Provided is novel poly(amide-imide) having high heat- resistance, excellent
 dissoln. property, and low insulation property, which is produced by using
 1,5-bistrimellitimido-2,4,6- trimethyl benzene(BTB). The poly(amide-imide) is
 produced by polymerizing directly 1,5-bistrimellitimido-2,4,6-trimethyl
 benzene(BTB) with diamines, wherein 1,5-bistrimellitimido-2,4,6-trimethyl
 benzene(BTB) is produced by dissolving trimellitic acid and DAM (2,4-
 Diaminomesitylene) in N-methylpyrrolidinone and condensing.
 IT 159523-76-9DP, polyamide-imides
 (preparation of bistrimellitimidotrimethylbenzene-based poly(amide
 imides) having high heat resistance and low insulation
 properties)
 RN 159523-76-9 HCAPLUS
 CN 1H-Isoindole-5-carboxylic acid, 2,2'-(2,4,6-trimethyl-1,3-
 phenylene)bis[2,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



IC ICM C08G073-14
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 35, 38
 ST heat resistant low insulation polyamide polyimide;
 bistrimellitimido trimethylbenzene polyamide polyimide
 IT Polyimides, preparation
 (polyamide-; preparation of bistrimellitimido trimethylbenzene-based
 poly(amide imides) having high heat resistance and low
 insulation properties)
 IT Polyamides, preparation
 (polyimide-; preparation of bistrimellitimido trimethylbenzene-based
 poly(amide imides) having high heat resistance and low
 insulation properties)
 IT Polymerization
 (preparation of bistrimellitimido trimethylbenzene-based poly(amide
 imides) having high heat resistance and low insulation
 properties)
 IT 159523-76-9P
 (monomer; preparation of bistrimellitimido trimethylbenzene-based
 poly(amide imides) having high heat resistance and low
 insulation properties)
 IT 159523-76-9DP, polyamide-imides
 (preparation of bistrimellitimido trimethylbenzene-based poly(amide
 imides) having high heat resistance and low insulation
 properties)
 IT 528-44-9, Trimellitic acid 3102-70-3
 (preparation of bistrimellitimido trimethylbenzene-based poly(amide
 imides) having high heat resistance and low insulation
 properties)

L45 ANSWER 2 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:355014 HCAPLUS Full-text
 DOCUMENT NUMBER: 140:358214
 TITLE: Polymer for heat-sensitive lithographic
 printing plate precursor with good cured chemical
 resistance
 INVENTOR(S): Groenendaal, Bert; Loccufier, Johan; Van Aert,
 Huub; Van Damme, Marc
 PATENT ASSIGNEE(S): Agfa-Gevaert, Belg.
 SOURCE: PCT Int. Appl., 47 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004035686	A2	20040429	WO 2003-EP50633	20030918 -->
WO 2004035686	A3	20041021		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
 GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
 KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
 MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
 SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
 YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
 NE, SN, TD, TG

AU 2003274112	A1	20040504	AU 2003-274112	20030918
			<--	
EP 1554346	A2	20050720	EP 2003-758095	20030918
			<--	
EP 1554346	B1	20080416		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1688657	A	20051026	CN 2003-824213	20030918
			<--	
JP 2006503143	T	20060126	JP 2004-544290	20030918
			<--	
US 20060144269	A1	20060706	US 2005-530992	20050916
			<--	
PRIORITY APPLN. INFO.:			EP 2002-102444	A 20021015
			<--	
			US 2002-420907P	P 20021024
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			WO 2003-EP50633	W 20030918
			<--	

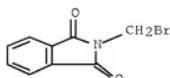
ED Entered STN: 30 Apr 2004

AB A polymer for a heat-sensitive lithog. printing plate precursor is disclosed wherein the polymer comprises a phenoic monomeric unit wherein the H atom of the hydroxy group of the Ph group of the phenolic monomeric unit is replaced by a group comprising a N-imide group and wherein the substitution of the polymer increases the chemical resistance of the coating of the printing plate precursor. Thus, reacting N-(bromomethyl)phthalimide with Alnovol SPN 452 (novolak polymer) gave a modified resin useful for lithog. printing plate precursor.

IT 5332-26-3DP, N-(Bromomethyl)phthalimide, reaction products with novolak resins 17564-64-6DP, N-(Chloromethyl)phthalimide, reaction products with novolak resins
 (polymer for heat-sensitive lithog. printing plate precursor with good cured chemical resistance)

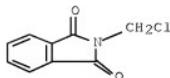
RN 5332-26-3 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(bromomethyl)- (CA INDEX NAME)



RN 17564-64-6 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(chloromethyl)- (CA INDEX NAME)



IC ICM C08L061-14
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38, 74
 ST lithog printing plate precursor prepн heat sensitive
 phenolic novolak
 IT Phenolic resins, properties
 (novolak, modified; polymer for heat-sensitive
 lithog. printing plate precursor with good cured chemical
 resistance)
 IT Positive photoresists
 Printing plates
 (polymer for heat-sensitive lithog. printing plate
 precursor with good cured chemical resistance)
 IT 5332-26-3DP, N-(Bromomethyl)phthalimide, reaction products
 with novolak resins 17564-64-6DP,
 N-(Chloromethyl)phthalimide, reaction products with novolak
 resins 100346-90-5DP, Alnovol SPN 452, imide-modified products
 681430-18-2DP, Alnovol HPN 100, imide-modified products
 (polymer for heat-sensitive lithog. printing plate
 precursor with good cured chemical resistance)

L45 ANSWER 3 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:354986 HCPLUS Full-text
 DOCUMENT NUMBER: 140:358210
 TITLE: Polymer for heat-sensitive lithographic
 printing plate precursor with good cured chemical
 resistance
 INVENTOR(S): Loccufier, Johan; Groenendaal, Bert; Van Aert,
 Huub; Van Damme, Marc
 PATENT ASSIGNEE(S): Agfa-Gevaert, Belg.
 SOURCE: PCT Int. Appl., 55 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

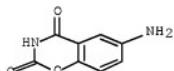
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004035645	A1	20040429	WO 2003-EP50657	20030925 ---

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 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
 GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
 KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
 MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
 SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
 YU, ZA, ZM, ZW

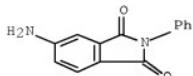
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
 NE, SN, TD, TG

AU 2003278180	A1	20040504	AU 2003-278180	20030925
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EP 1554324	A1	20050720	EP 2003-769495	20030925
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1688625	A	20051026	CN 2003-824214	20030925
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JP 2006503144	T	20060126	JP 2004-544292	20030925
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US 20060019191	A1	20060126	US 2005-531629	20050701
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PRIORITY APPLN. INFO.:			EP 2002-102445	A 20021015
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			US 2002-421540P	P 20021025
<--				
			WO 2003-EP50657	W 20030925
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ED Entered STN: 30 Apr 2004
 AB A polymer for a heat-sensitive lithog. printing plate precursor is disclosed wherein the polymer comprises a phenolic monomeric unit of which the Ph group is substituted by a group A characterized in that the group A comprises an imide or thioimide group and wherein the modification of the polymer increases the chemical resistance of the coating of the printing plate precursor. Thus, reacting a SO₂C₁₂-activated mercaptoaminothiadiazole succinimide with Alnovol SPN 452 (novolak resin) gave a modified product useful for printing plate precursor.
 IT 4297-75-0DP, reaction products with novolaks
 20871-03-8DP, reaction products with novolaks
 (polymer for heat-sensitive lithog. printing plate precursor with good cured chemical resistance)
 RN 4297-75-0 HCPLUS
 CN 2H-1,3-Benzoxazine-2,4(3H)-dione, 6-amino- (CA INDEX NAME)



RN 20871-03-8 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 5-amino-2-phenyl- (CA INDEX NAME)



IC ICM C08G008-28
 ICS C08L061-14; G03F007-105
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38, 74
 ST lithog printing plate manuf heat sensitive modified
 novolak resin
 IT Phenolic resins, properties
 (novolak, modified; polymer for heat-sensitive
 lithog. printing plate precursor with good cured chemical
 resistance)
 IT Positive photoresists
 Printing plates
 (polymer for heat-sensitive lithog. printing plate
 precursor with good cured chemical resistance)
 IT 4297-75-0DP, reaction products with novolaks
 20871-03-8DP, reaction products with novolaks
 100346-90-5P, Alnovol SPN 452 681430-23-9DP, reaction products with
 novolaks 681430-24-0DP, reaction products with
 novolaks
 (polymer for heat-sensitive lithog. printing plate
 precursor with good cured chemical resistance)
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L45 ANSWER 4 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:5238 HCPLUS Full-text
 DOCUMENT NUMBER: 140:84631
 TITLE: Photosensitive polymer composition, method of
 forming relief patterns, and electronic equipment
 INVENTOR(S): Nunomura, Masataka; Ooe, Masayuki; Nakano, Hajime;
 Tsumaru, Yoshihiko; Ueno, Takumi
 PATENT ASSIGNEE(S): Hitachi Chemical Dupont Microsystems Ltd., Japan
 SOURCE: Eur. Pat. Appl., 30 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1376231	A1	20040102	EP 2003-11014 <--	20030516
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2003337415	A	20031128	JP 2002-143166 <--	20020517
JP 2004279654	A	20041007	JP 2003-69898 <--	20030314
PRIORITY APPLN. INFO.:			JP 2002-143166 <--	A 20020517
			JP 2003-69898 <--	A 20030314

ED Entered STN: 05 Jan 2004

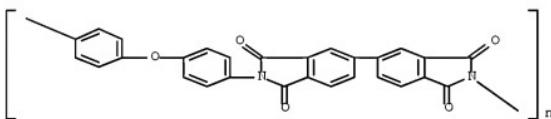
AB A photosensitive polymer composition, has (a) a polymer selected from polyimide precursors and polyimides having an acid group protected by a protecting group and having no amino group (-NH2) at the end; and (b) a

compound that generates an acid when exposed to light and capable of deprotecting the protecting group from the acid group, is employed to form layers of a semiconductor device.

IT 26615-45-2DP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl ether copolymer, SRU, reaction product with Chloromethyl Et ether 77243-66-4DP,
3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl sulfone copolymer, SRU, reaction product with chloromethyl Et ether 121334-10-9DP, reaction product with di-Bu dicarbonate
(photosensitive polymer composition for forming relief patterns and electronic equipment containing)

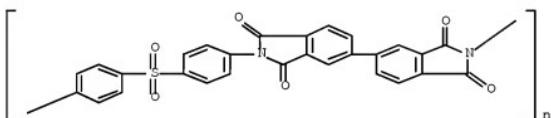
RN 26615-45-2 HCPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)



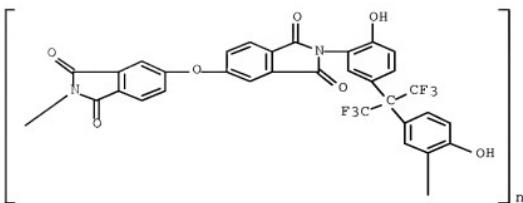
RN 77243-66-4 HCPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,4-phenylenesulfonyl-1,4-phenylene] (CA INDEX NAME)



RN 121334-10-9 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)] (CA INDEX NAME)



IC ICM G03F007-039
 ICS G03F007-023
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38, 76
 IT Positive photoresists
 Semiconductor devices
 (photosensitive polymer composition for forming relief patterns and electronic equipment)
 IT 101-80-4DP, 4,4'-Diaminodiphenyl ether, reaction product with Chloromethyl Et ether; polyimides 3188-13-4DP, Chloromethyl ethyl ether, reaction product with polyamic acid 26298-81-7DP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl ether copolymer, reaction product with Chloromethyl Et ether 26298-81-7P, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl ether copolymer 26615-15-2DP , 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl ether copolymer, SRU, reaction product with Chloromethyl Et ether 26615-45-2P, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl ether copolymer, SRU 35243-37-9DP, reaction product with Chloromethyl Et ether; polyimides 56091-26-OP 77238-85-8DP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl sulfone copolymer, reaction product with Chloromethyl Et ether 77243-66-4DP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-diaminodiphenyl sulfone copolymer, SRU, reaction product with chloromethyl Et ether 121333-86-6DP, reaction product with di-Bu dicarbonate 121334-10-9DP, reaction product with di-Bu dicarbonate 158853-02-2DP, reaction product with Chloromethyl Et ether 640737-52-6P, Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diaminodiphenyl ether-4,4'-dicarboxyldiphenyl ether dichloride-3,3',4,4'-dicyclohexyl ether tetracarboxylic acid dianhydride copolymer
 (photosensitive polymer composition for forming relief patterns and electronic equipment containing)
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 5 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2003:168707 HCPLUS Full-text
 DOCUMENT NUMBER: 138:229209
 TITLE: Electrostatographic toner causing less scattering
 INVENTOR(S): Sato, Yoshihiro; Fujii, Keiichi

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003066653	A	20030305	JP 2001-257244 <--	20010828
PRIORITY APPLN. INFO.:			JP 2001-257244 <--	20010828

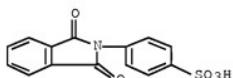
ED Entered STN: 06 Mar 2003

AB A toner, which is suitable for use with electrostatog. apparatus of wide speed range and less likely to scatter in an electrophotog. device and produces high quality prints with sustained stability, comprises a polyester binder resin and an aromatic sulfonic acid zirconium compound as charge-control agent. The binder resin is obtained by the reaction of polybasic compds. selected from polybasic carboxylic acids, their anhydrides, and their lower alkyl esters with diols including compds. selected from bisphenol A and bisphenol A adducts with ethylene oxide and/or propylene oxide.

IT 86581-47-7DP, zirconium complexes 481054-38-0DP,
zirconium complexes
(charge-control agents for electrostatog. toner)

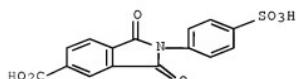
RN 86581-47-7 HCPLUS

CN Benzenesulfonic acid, 4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- (CA INDEX NAME)



RN 481054-38-0 HCPLUS

CN 1H-Isoindole-5-carboxylic acid, 2,3-dihydro-1,3-dioxo-2-(4-sulfophenyl)- (CA INDEX NAME)



IC ICM G03G009-097

ICS G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Polyesters, properties

(epoxy-phenolic, novolak; electrostatog. toner causing less scattering)
 IT Phenolic resins, properties
 (epoxy-polyester-, novolak; electrostatog. toner causing less scattering)
 IT Epoxy resins, properties
 (phenolic-polyester-, novolak; electrostatog. toner causing less scattering)
 IT 86581-47-7DP, zirconium complexes 481054-38-0DP,
 zirconium complexes
 (charge-control agents for electrostatog. toner)

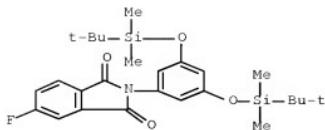
L45 ANSWER 6 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2002:592334 HCPLUS Full-text
 DOCUMENT NUMBER: 137:161388
 TITLE: Positively working photosensitive polyimide composition with high i-line sensitivity and its film
 INVENTOR(S): Okazaki, Maki; Shibasaki, Yuji; Ueda, Mitsuru
 PATENT ASSIGNEE(S): JSR Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2002221793	A	20020809	JP 2001-20016 <-- JP 2001-20016 <--	20010129 20010129
PRIORITY APPLN. INFO.:				

ED Entered STN: 09 Aug 2002
 AB The composition contains hyperbranched polyimides having alkali-soluble groups and dissoln. inhibitors. The polyimide film is obtained by irradiation and development of the above composition. The composition shows high i-line sensitivity and gives high-contrast patterns to be useful for manufacture of interlayer insulating films of high-d. multilayer circuit boards.
 IT 243459-29-2DP, hydrolyzed 266695-65-2DP, hydrolyzed
 (pos.-working photosensitive polyimide composition with high i-line sensitivity and its film)
 RN 243459-29-2 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-[3,5-bis([(1,1-dimethylethyl)dimethylsilyl]oxy)phenyl]-5-fluoro-, homopolymer (9CI)
 (CA INDEX NAME)

CM 1

CRN 243459-23-6
 CMF C26 H36 F N O4 Si2



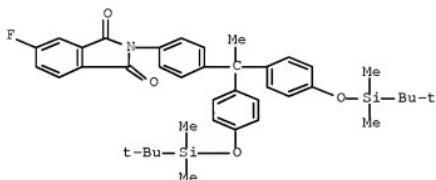
RN 266695-65-2 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[1,1-bis[4-[[(1,1-dimethylpropyl)dimethylsilyloxy]phenyl]ethyl]phenyl]-5-fluoro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 266695-64-1

CMF C40 H48 F N O4 Si2



IC ICM G03F007-037

ICS C08G073-10; C08J005-18; C08K005-28; C08L079-08; G03F007-022; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

IT Positive photoresists

(pos.-working photosensitive polyimide composition with high i-line sensitivity and its film)

IT 243459-29-2DP, hydrolyzed 266695-65-2DP, hydrolyzed

(pos.-working photosensitive polyimide composition with high i-line sensitivity and its film)

L45 ANSWER 7 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:532749 HCPLUS [Full-text](#)

DOCUMENT NUMBER: 138:272250

TITLE: Light-sensitive fluorine-containing polyimides with side 1,2,3-thiadiazole rings

AUTHOR(S): Vainer, A. Ya.; Dyumaev, K. M.; Lodygin, S. K.; Posadskaya, N. P.

CORPORATE SOURCE: All-Russia Institute of Medicinal and Aromatic Plants, Russian Academy of Agricultural Sciences, Moscow, 113628, Russia

SOURCE:

Doklady Chemistry (Translation of the chemistry section of Doklady Akademii Nauk) (2002), 383(4-6), 120-122

CODEN: DKCHAY; ISSN: 0012-5008

PUBLISHER:

MAIK Nauka/Interperiodica

DOCUMENT TYPE:

Journal

LANGUAGE:

English

ED Entered STN: 17 Jul 2002

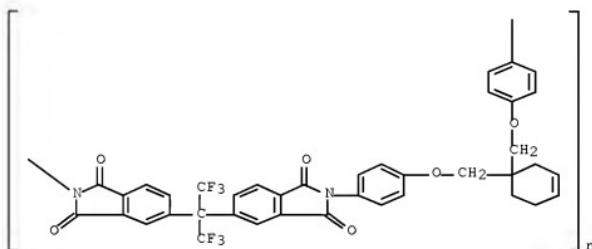
AB Light-sensitive fluorine-containing polyimides (PI) with side 1,2,3-thiadiazole rings were synthesized using polymer-analogous reactions in PI chains via intermediate oxidation of the initial cyclohexene-containing polymers. The photochem. transformations of these PI derivs. were investigated. Photolysis of polymers with this type of light-sensitive groups gave thioketene as an intermediate. The good prospects of the PI derivs. considered as thermally stable neg. photoresists were demonstrated.

IT 224630-57-3DP, epoxidized, reaction products with

(hydroxyphenyl)thiadiazole
(preparation and lithog. efficiency of light-sensitive
fluorine-containing polyimides with side thiadiazole rings)

RN 224630-57-3 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxymethylene-3-cyclohexen-1-ylidenemethylenoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 74

IT Polyimides, preparation

(polyether-, fluorine-containing; preparation and lithog.
efficiency of light-sensitive fluorine-containing polyimides with side
thiadiazole rings)

IT Fluoropolymers, preparation

(polyether-polyimide; preparation and lithog. efficiency of
light-sensitive fluorine-containing polyimides with side thiadiazole
rings)

IT Polyethers, preparation

(polyimide-, fluorine-containing; preparation and lithog.
efficiency of light-sensitive fluorine-containing polyimides with side
thiadiazole rings)

IT Light-sensitive materials

Negative photoresists

(preparation and lithog. efficiency of light-sensitive fluorine-containing polyimides with side thiadiazole rings)

IT 59834-05-8DP, reaction products with epoxidized bis(aminophenoxyethyl)cyclohexene-bis(dicarboxyphenyl)hexafluoropropane dianhydride copolymer 224630-56-2DP, epoxidized, reaction products with (hydroxyphenyl)thiadiazole 224630-57-3DP, epoxidized, reaction products with (hydroxyphenyl)thiadiazole (preparation and lithog. efficiency of light-sensitive fluorine-containing polyimides with side thiadiazole rings)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

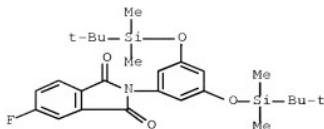
L45 ANSWER 8 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2001:621423 HCAPLUS Full-text
 DOCUMENT NUMBER: 135:331760
 TITLE: New positive type photosensitive polyimide:
 hyperbranched poly (ether imide) with
 diazonaphthoquinone
 AUTHOR(S): Okazaki, Masaki; Shibasaki, Yuji; Ueda, Mitsuhiro
 CORPORATE SOURCE: Department of Organic and Polymeric materials,
 Tokyo Institute of Technology, Tokyo, 152-8552,
 Japan
 SOURCE: Journal of Photopolymer Science and Technology (2001), 14(1), 45-50
 CODEN: JSTEEW; ISSN: 0914-9244
 PUBLISHER: Technical Association of Photopolymers, Japan
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 28 Aug 2001
 AB A pos. working photosensitive polyimide based on hyperbranched poly(ether imide) (H-PEI) and 2,3,4-tris[1-oxo-2-diazonaphthoquinone-5-sulfonyloxy]benzophenone (D5SB) as a photoreactive compound was developed. The H-PEI was prepared by polycondensation of 3,5-di-tert-butylidemethylsilyloxyphenyl-4-fluorophthalimide, followed by deprotection by hydrolysis of the tert-butylidemethylsilyl group with KF-HBr. The H-PEI has excellent transparency to UV light. The photosensitive polyimide containing 30% of D5SB showed photosensitivity of 120 mJ·cm⁻² and contrast of 2.8 when it was exposed to 365 nm light followed by developing with a 2.38% aqueous tetramethylammonium hydroxide solution at room temperature

IT 243459-23-JDP, hydrolyzed
 (preparation of hyperbranched polyetherimide and dissoln. rate of pos. photosensitive polyetherimide - diazonaphthoquinone system)

RN 243459-29-2 HCAPLUS
 CN 1H-Isindole-1,3(2H)-dione, 2-[3,5-bis([(1,1-dimethylethyl)dimethylsilyl]oxy)phenyl]-5-fluoro-, homopolymer (9CI)
 (CA INDEX NAME)

CM 1

CRN 243459-23-6
 CMF C26 H36 F N O4 Si2



CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37, 74

ST hyperbranched polyetherimide prep transparency pos
photoresist; diazonaphthoquinone sulfonyloxybenzophenone
dissoln inhibitor polyetherimide pos photoresist

IT Dissolution rate

Light-sensitive materials

Positive photoresists

Transparency

(preparation of hyperbranched polyetherimide and dissoln. rate of pos.
photosensitive polyetherimide - diazonaphthoquinone system)

IT 243459-29-2DP, hydrolyzed

(preparation of hyperbranched polyetherimide and dissoln. rate of pos.
photosensitive polyetherimide - diazonaphthoquinone system)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L45 ANSWER 9 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:19893 HCPLUS Full-text

DOCUMENT NUMBER: 134:208269

TITLE: New unsaturated polyimides: synthesis, thermo- and
photochemical transformations of fluorinated
polyimides with pendant acenaphthylene fragments
Vainer, A. Ya.; Dymaev, K. M.; Kaminarskaya, Kh.
B.; Kornienko, E. Yu.

AUTHOR(S):
CORPORATE SOURCE: Vseross. Nauchno-Issled. Inst. Lekarstvennykh i
Aromaticheskikh Rastenii, Ross. Akad. S-Kh. Nauk,
Moscow, Russia

SOURCE: Doklady Akademii Nauk (2000), 375(1),
60-63

CODEN: DAKNEQ; ISSN: 0869-5652

PUBLISHER: MAIK Nauka

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 10 Jan 2001

AB Fluorine-containing polyimides having acenaphthylene in a side chain were
prepared from 4,4'-bis(4'-aminophenoxyethyl)-1-cyclohexene-based polyimides
by their epoxidation with *t*-Bu hydroperoxide followed by PPh₃-catalyzed
etherification with 4-acenaphthyleneol. All the polyimides are thermally
stable at temps. ≤ 400°. The polymers were tested for neg. photoresist
application using 2,6-bis(4'-azidobenzylidene)-4-methylcyclohexanone as a
structuring agent.

IT 224630-57-3DP, epoxidized, ethers with 4-acenaphthyleneol

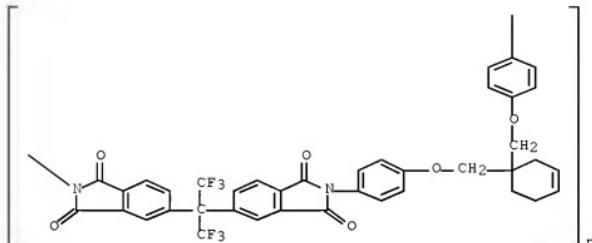
329439-14-7DP, epoxidized, ethers with 4-acenaphthyleneol

329439-16-9DP, epoxidized, ethers with 4-acenaphthyleneol

(synthesis, thermo- and photochem. transformations of fluorinated
polyimides with pendant acenaphthylene fragments)

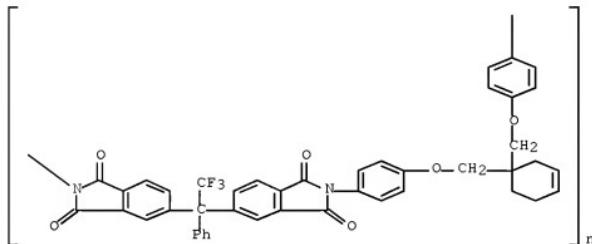
RN 224630-57-3 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene)(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxymethylenecyclohexenylidenemethylenoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



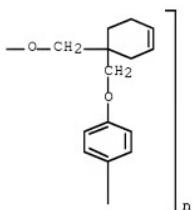
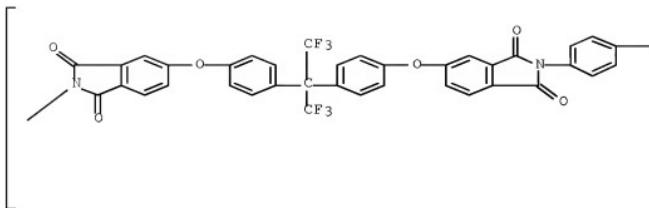
RN 329039-14-7 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)(2,2,2-trifluoro-1-phenylethylidene)(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxymethylenecyclohexenylidenemethylenoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 329039-16-9 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene][2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxymethylenecyclohexenylidenemethylenoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36, 74

ST photoresist acenaphthylene contg fluoro polyimide synthesis
thermal stability

IT Negative photoresists
Photolithography

(synthesis, thermo- and photochem. transformations of fluorinated polyimides with pendant acenaphthylene fragments)

IT 111013-09-3DP, 4-Acenaphthyleneol, ethers with epoxidized fluorine-containing unsatd. polyimides 224630-56-2DP, epoxidized, ethers with 4-acenaphthyleneol 224630-57-3DP, epoxidized, ethers with 4-acenaphthyleneol 329039-13-6DP, epoxidized, ethers with 4-acenaphthyleneol 329039-14-7DP, epoxidized, ethers with 4-acenaphthyleneol 329039-15-8DP, epoxidized, ethers with 4-acenaphthyleneol 329039-16-9DP, epoxidized, ethers with 4-acenaphthyleneol
(synthesis, thermo- and photochem. transformations of fluorinated polyimides with pendant acenaphthylene fragments)

L45 ANSWER 10 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:635095 HCAPLUS Full-text

DOCUMENT NUMBER: 133:239048

TITLE: Thermoplastic polyimide heat-resistant

adhesives containing crosslinkable acetylene
terminal groups
INVENTOR(S): Ohkawa, Yuichi; Sakata, Yoshihiro; Okumura,
Tomomi; Shibuya, Atsushi; Kuroki, Takashi; Oikawa,
Hideaki
PATENT ASSIGNEE(S): Mitsui Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000248252	A	20000912	JP 1999-101106 <--	19990408
PRIORITY APPLN. INFO.:			JP 1998-374652 <--	A 19981228

ED Entered STN: 13 Sep 2000

AB The polyimides (A) are prepared by reacting a diamine monomer having four benzene rings and both amino groups on the meta positions and an aromatic tetracarboxylic dianhydride monomer first then adding one or two dicarboxylic acid anhydride mols. with C.tpbond.C groups as terminal blocking agents and finally heat-treating the precursor polyamic acids (B) at higher temperature Thus, reacting a mixture of 73.69 g 4,4'-bis(3-aminophenoxy)biphenyl and 55.49 g 3,3',4,4'- biphenyltetracarboxylic acid anhydride in 302.38 g N-methylpyrrolidone at room temperature for 6 h then adding 1.24 g 2-(3,4-dicarboxyphenyl)-1- phenylacetylene anhydride and 0.74 g phthalic acid anhydride and reacting for another 12 h gave a B with logarithmic viscosity of 0.51 dL/g and finally heating B solution at 100°, 200° and 250° for 1 h resp. gave an A with adhesive strength of 2.20 kg/cm and good heat resistance.

IT 52004-08-7DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl] sulfone copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 74970-14-2DP, Bis[4-(3-aminophenoxy)phenyl] sulfone-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid 95903-18-2DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl] sulfone copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 105359-95-3DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110563-83-2DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl] sulfide copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110563-85-4DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-4,4'-bis(3-aminophenoxy)biphenyl copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110563-86-5DP, 4,4'-Bis(3-aminophenoxy)biphenyl-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 116964-65-9DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 116964-66-0DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl] sulfide copolymer, polyimide sr, reaction product

with dicarboxyphenyl acetylene compds. and phthalic acid anhydride 117548-00-2DP, 4,4'-Bis(3-aminophenoxy)biphenyl-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 129401-97-4DP,
 4,4'-Bis(3-aminophenoxy)biphenyl-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 129734-22-1DP,
 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl]ketone copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 181709-32-0DP, Bis[4-(3-aminophenoxy)phenylether-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292856-94-1DP,
 4,4'-Bis(3-aminophenoxy)biphenyl-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292856-97-4DP, 4,4'-Bis(3-aminophenoxy)biphenyl-3,(4-dicarboxyphenyl) sulfide dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-05-7DP, Bis[4-(3-aminophenoxy)phenyl]ketone-1,3-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-13-7DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-2,2-bis[3-(3-aminophenoxy)phenyl]propane copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-15-9DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-17-1DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-21-7DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-2,2-bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3,3-hexafluoropropane copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-27-3DP, 3,3',4,4'-Benzophonetetracarboxylic dianhydride-2,2-bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3,3-hexafluoropropane copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-30-8DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3,3-hexafluoropropane-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-35-3DP, Bis[4-(3-aminophenoxy)phenyl]ether-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-39-1DP, Bis[4-(3-aminophenoxy)phenyl]ether-2,2-bis[(3,4-dicarboxyphenyl)phenyl]propane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-43-3DP, Bis[4-(3-aminophenoxy)phenyl]ether-bis(3,4-dicarboxyphenyl)sulfide dianhydride

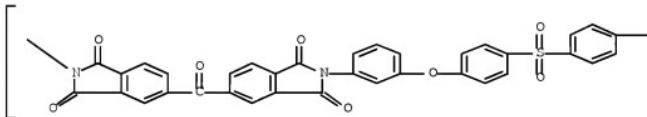
copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-48-9DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-50-2DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-52-4DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3-hexafluoropropane-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-54-6DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,2-bis[3-(3-aminophenoxy)phenyl]propane copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride

(thermoplastic polyimide heat-resistant adhesives containing crosslinkable acetylene terminal groups)

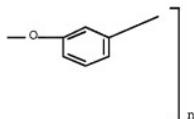
RN 52004-08-7 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,3-phenylene] (CA INDEX NAME)

PAGE 1-A

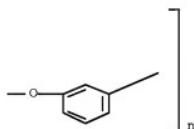
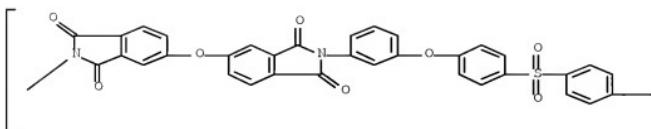


PAGE 1-B



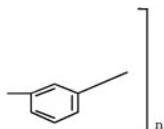
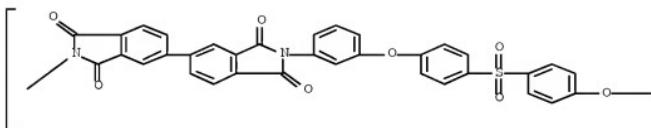
RN 74970-14-2 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)



RN 95908-18-2 HCAPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,3-phenylenel] (CA INDEX NAME)

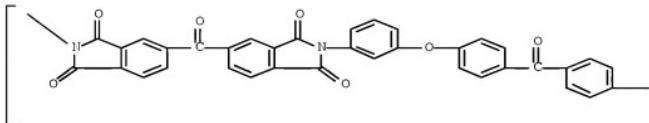


BN 105359-95-3 HCAPLUS

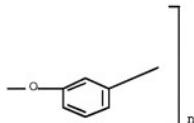
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diy1)carbonyl(1,3-dihydro-

1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenylene carbonyl-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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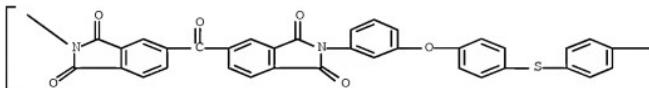
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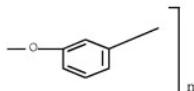
RN 110563-83-2 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenylenethio-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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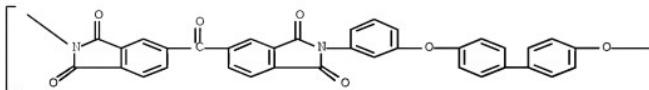
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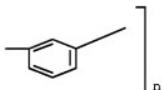
RN 110563-85-4 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (CA INDEX NAME)

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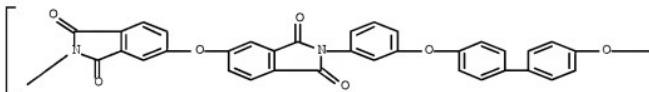
PAGE 1-B



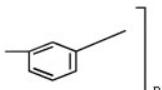
RN 110563-86-5 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (CA INDEX NAME)

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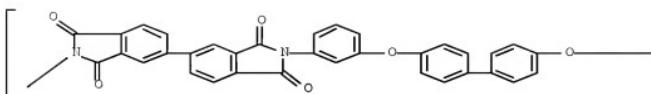
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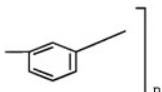
RN 116964-65-9 HCAPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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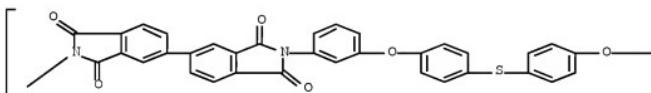
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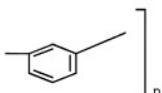
RN 116964-66-0 HCPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenyleneoxy-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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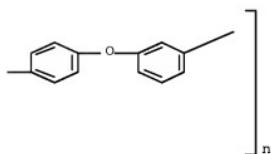
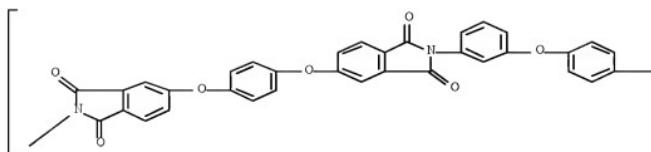


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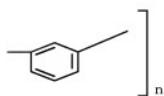
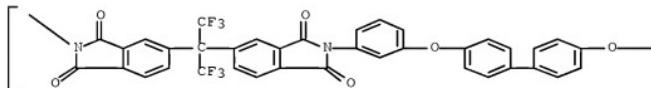
RN 117548-00-2 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (9CI) (CA INDEX NAME)



RN 129401-97-4 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene]
(9CI) (CA INDEX NAME)

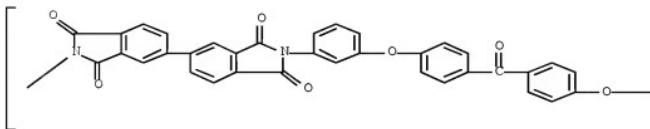


RN 129734-22-1 HCPLUS

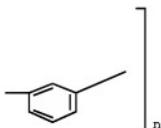
10/531,629

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenyleneoxy-1,4-phenylene carbonyl-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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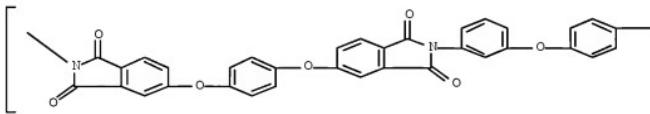
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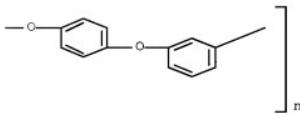
RN 181709-32-0 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenyleneoxy-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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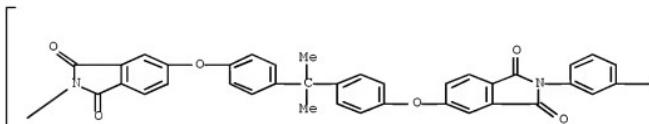
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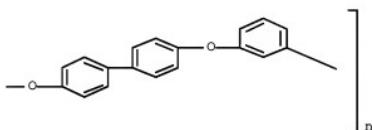
RN 292856-94-1 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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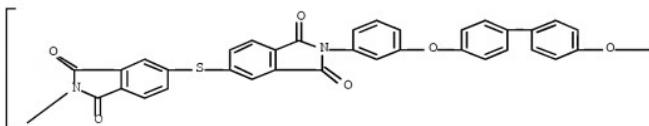
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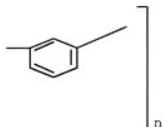


RN 292856-97-4 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)thio(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (9CI) (CA INDEX NAME)

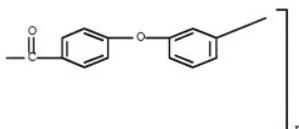
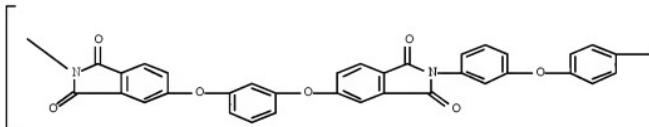
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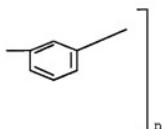
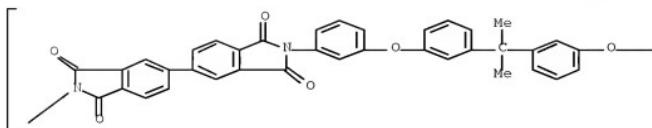
RN 292857-05-7 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,3-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenylene carbonyl-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)



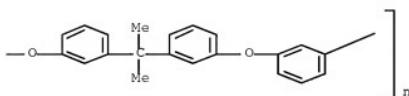
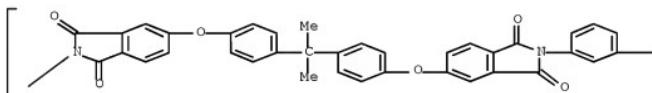
BN 292857-13-7 HCAPLUS

CN Poly[(1',1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenyleneoxy-1,3-phenylene(1-methylallylidene)-1,3-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)



RN 292857-15-9 HCPLUS

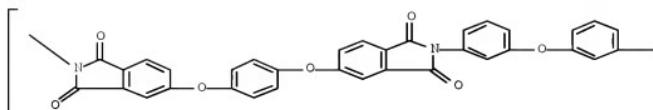
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene(1-methylethylidene)-1,3-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)



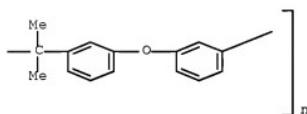
RN 292857-17-1 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene(1-methylethylidene)-1,3-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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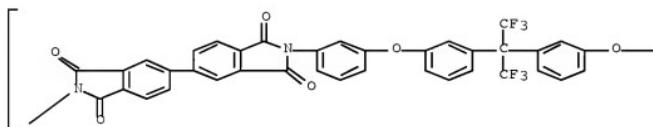
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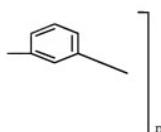
RN 292857-21-7 HCPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenyleneoxy-1,3-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,3-phenyleneoxy-1,3-phenylene] (9CI)
(CA INDEX NAME)

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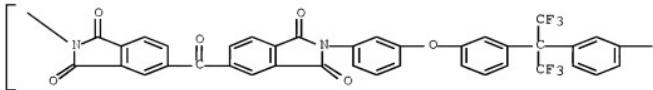


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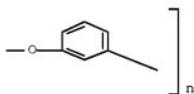
10/531,629

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,3-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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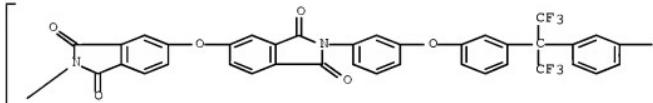
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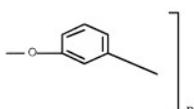
RN 292857-30-8 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,3-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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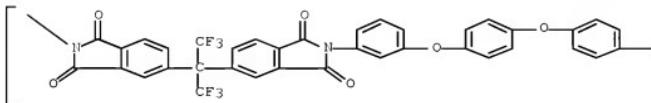
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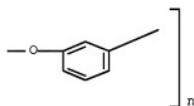
RN 292857-35-3 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenyleneoxy-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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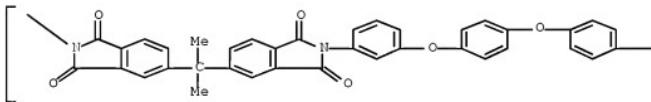
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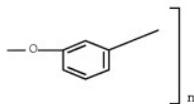
RN 292857-39-7 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)(1-methylethylidene)(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenyleneoxy-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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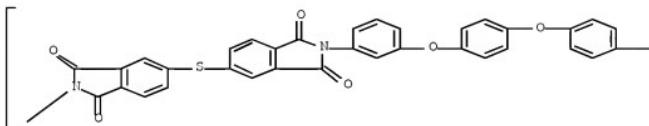
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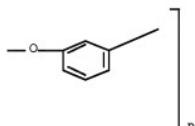
RN 292857-43-3 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)thio(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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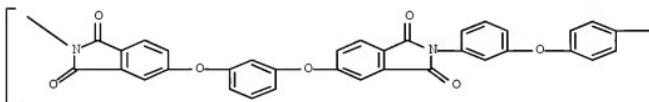
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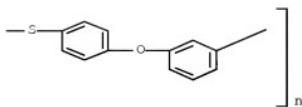


RN 292857-48-8 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,3-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenylenethio-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

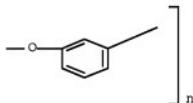
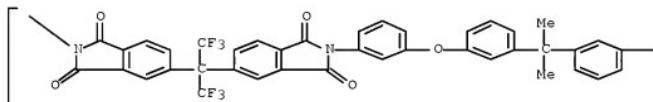
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RN 292857-50-2 HCPLUS

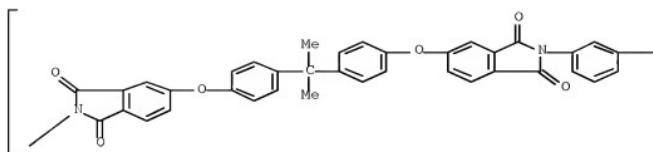
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene(1-methylethylidene)-1,3-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)



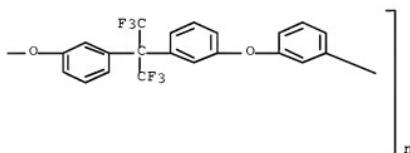
RN 292857-52-4 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,3-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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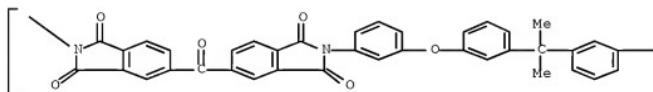
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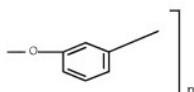
RN 292857-54-6 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene(1-methylethylidene)-1,3-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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IC ICM C09J179-08

ICS C08G073-10
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 35
 ST Thermoplastic polyimide heat resistant adhesive; polyamic acid crosslinkable acetylene polyimide adhesive; acetylene terminal blocking agent polyamic acid polyimide adhesive
 IT Adhesives
 (heat-resistant; thermoplastic polyimide heat-resistant adhesives containing crosslinkable acetylene terminal groups)
 IT Polyamic acids
 (precursor of polyimides; thermoplastic polyimide heat-resistant adhesives containing crosslinkable acetylene terminal groups)
 IT Polyimides, uses
 (thermoplastic polyimide heat-resistant adhesives containing crosslinkable acetylene terminal groups)
 IT Adhesives
 (thermoplastic; thermoplastic polyimide heat-resistant adhesives containing crosslinkable acetylene terminal groups)
 IT 105156-69-2DP, 4,4'-Bis(3-aminophenoxy)biphenyl-pyromellitic dianhydride copolymer polyamic sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride
 (105156-69-2; thermoplastic polyimide heat-resistant adhesives containing crosslinkable acetylene terminal groups)
 IT 85-44-9, 1,3-Isobenzofuranidine 119389-05-8, 2-(3,4-Dicarboxyphenyl)-1-phenylacetylene anhydride 159507-09-2 186612-18-0 258288-68-5
 (terminal blocking agent; thermoplastic polyimide heat-resistant adhesives containing crosslinkable acetylene terminal groups)
 IT 52004-68-7DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl] sulfone copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 52004-61-2DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl] sulfone copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 58912-81-5DP, Bis[4-(3-aminophenoxy)phenyl] sulfone-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 74951-85-2DP, Bis[4-(3-aminophenoxy)phenyl] sulfone-pyromellitic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 74970-13-2DP, Bis[4-(3-aminophenoxy)phenyl] sulfone-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 77945-58-5DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl] sulfide copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 77967-33-0DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl]ketone copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 79303-35-8DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl] sulfone copolymer, polyamic

sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 95831-31-5DP, 3',4',4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl] sulfone copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 95903-18-2DP, 3',4',4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl] sulfone copolymer, polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 105156-70-5DP, Bis[4-(3-aminophenoxy)phenyl]sulfone-pyromellitic dianhydride copolymer, polyamic sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 105156-73-8DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 105218-97-1DP, 4',4'-Bis(3-aminophenoxy)biphenyl-pyromellitic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 105359-94-2DP, 4',4'-Bis(3-aminophenoxy)biphenyl-pyromellitic dianhydride copolymer polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 105359-95-3DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110563-93-2DP, 3',4',4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl]sulfide copolymer, polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110563-65-4DP, 3',4',4'-Benzophenonetetracarboxylic dianhydride-4,4'-bis(3-aminophenoxy)biphenyl copolymer, polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110563-86-5DP, 4',4'-Bis(3-aminophenoxy)biphenyl-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110586-39-5DP, 3',3',4,4'-Benzophenonetetracarboxylic dianhydride-4,4'-bis(3-aminophenoxy)biphenyl copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110586-40-8DP, 4',4'-Bis(3-aminophenoxy)biphenyl-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110615-95-7DP, 4,4'-Bis(3-aminophenoxy)biphenyl-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, polyamic sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110615-97-9DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110615-98-0DP, 3',4',4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl]sulfide copolymer, polyamic sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 110749-59-2DP, 4,4'-Bis(3-aminophenoxy)biphenyl-4,4'-diaminodiphenyl ether-pyromellitic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 116958-32-8DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 116958-33-9DP, 3',3',4,4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl]sulfide copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic

acid anhydride 116964-55-7DP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-4,4'-bis(3-aminophenoxy)biphenyl copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 116964-65-9DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 116964-66-0DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl]sulfide copolymer, polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 117501-11-8DP, 4,4'-Bis(3-aminophenoxy)biphenyl-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, polyamic sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 117547-82-7DP, 4,4'-Bis(3-aminophenoxy)biphenyl;1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 117548-90-2DP, 4,4'-Bis(3-aminophenoxy)biphenyl-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 118547-03-8DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl]ketone copolymer, polyamic sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 129401-96-3DP, 4,4'-Bis(3-aminophenoxy)biphenyl-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 129401-97-4DP, 4,4'-Bis(3-aminophenoxy)biphenyl-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 129734-22-1DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl]ketone copolymer, polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 129766-07-0DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl]ketone copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 149175-13-3DP, 4,4'-Bis(3-aminophenoxy)biphenyl-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, polyamic sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 155912-62-2DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-4,4'-bis(3-aminophenoxy)biphenyl-pyromellitic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 166515-30-6DP, Bis[4-(3-aminophenoxy)phenyl]sulfone-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, polyamic sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 181709-29-5DP, Bis[4-(3-aminophenoxy)phenyl]ether-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 191709-32-0DP, Bis[4-(3-aminophenoxy)phenyl]ether-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, polyimide sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 189460-29-5DP, 4,4'-Bis(3-aminophenoxy)biphenyl-1,4,5,8-naphthalenetetracarboxylic dianhydride copolymer, polyamic sru, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 258288-02-7DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]-1,1,3,3,3-hexafluoropropane-pyromellitic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid

anhydride 258288-27-6DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3-hexafluoropropane-pyromellitic dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292856-93-0DP, 4,4'-Bis(3-aminophenoxy)biphenyl;2,2-bis[3,(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292856-94-1DP, 4,4'-Bis(3-aminophenoxy)biphenyl-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292856-96-3DP, 4,4'-Bis(3-aminophenoxy)biphenyl;bis(3,4-dicarboxyphenyl) sulfide dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292856-97-4DP, 4,4'-Bis(3-aminophenoxy)biphenyl-bis(3,4-dicarboxyphenyl) sulfide dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292856-98-5DP, 4,4'-Bis(3-aminophenoxy)biphenyl-1,4,5,8-naphthalenetetracarboxylic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292856-99-6DP, 4,4'-Bis(3-aminophenoxy)biphenyl-1,4,5,8-naphthalenetetracarboxylic dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-04-6DP, Bis[4-(3-aminophenoxy)phenyl]ketone;1,3-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-05-7DP, Bis[4-(3-aminophenoxy)phenyl]ketone-1,3-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-09-1DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-pyromellitic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-10-4DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-pyromellitic dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-11-5DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-2,2-bis[3-(3-aminophenoxy)phenyl]propane copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-13-7DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-2,2-bis[3-(3-aminophenoxy)phenyl]propane copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-14-8DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-15-9DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-16-0DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-17-1DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-19-3DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-2,2-bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3-

hexafluoropropane copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-21-7DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-2,2-bis[3-(3-aminophenoxy)phenyl]-1,1,3,3,3-hexafluoropropane copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-25-1DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,2-bis[3-(3-aminophenoxy)phenyl]-1,1,3,3,3-hexafluoropropane copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-27-3DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,2-bis[3-(3-aminophenoxy)phenyl]-1,1,3,3,3-hexafluoropropane copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-28-4DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3,3-hexafluoropropane-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-30-6DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3,3-hexafluoropropane-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-32-0DP, Bis[4-(3-aminophenoxy)phenyl]ether-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-35-3DP, Bis[4-(3-aminophenoxy)phenyl]ether-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-37-5DP, Bis[4-(3-aminophenoxy)phenyl]ether-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-39-7DP, Bis[4-(3-aminophenoxy)phenyl]ether-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-41-1DP, Bis[4-(3-aminophenoxy)phenyl]ether-bis(3,4-dicarboxyphenyl)sulfide dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-43-3DP, Bis[4-(3-aminophenoxy)phenyl]ether-bis(3,4-dicarboxyphenyl)sulfide dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-44-4DP, Bis[4-(3-aminophenoxy)phenyl]sulfide-1,4,5,8-naphthalenetetracarboxylic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-45-5DP, Bis[4-(3-aminophenoxy)phenyl]sulfide-1,4,5,8-naphthalenetetracarboxylic dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-47-7DP, Bis[4-(3-aminophenoxy)phenyl]sulfide-1,3-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-48-8DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-49-9DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-50-2DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, polyimide sr, reaction product with

dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-51-3DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3-hexafluoropropane-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-52-4DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3-hexafluoropropane-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-53-5DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,2-bis[3-(3-aminophenoxy)phenyl]propane copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-54-6DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,2-bis[3-(3-aminophenoxy)phenyl]propane copolymer, polyimide sr, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-56-8DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl]ketone-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-57-9DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-58-0DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-bis[4-(3-aminophenoxy)phenyl]sulfone-bis(3,4-dicarboxyphenyl)sulfide dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-59-1DP, 4,4'-Bis(3-aminophenoxy)biphenyl-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride-3,4'-diaminodiphenyl ether copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-60-4DP, 1,3-Bis(3-aminophenoxy)benzene-bis[4-(3-aminophenoxy)phenyl]ketone-1,4-bis(3,4-dicarboxyphenoxy)benzene dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-62-6DP, 1,3-Bis(3-aminophenoxy)-4-trifluoromethylbenzene-bis[4-(3-aminophenoxy)phenyl]sulfone-bis(3,4-dicarboxyphenyl)sulfide dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-63-7DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]propane-1,3-bis[4-(4-aminophenoxy)-*a*,*a*-dimethylbenzyl]benzene-1,4,5,8-naphthalenetetracarboxylic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-64-8DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-4,4'-bis[4-(4-aminophenoxy)benzoyl]diphenyl ether-2,2-bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3-hexafluoropropane copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-65-9DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-4,4'-bis(3-aminophenoxy)biphenyl-m-phenylenediamine copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-66-0DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl]ether-3,3'-diaminobiphenyl sulfone copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-68-2DP, Bis[4-(3-aminophenoxy)phenyl]sulfide-3,3'-diamino-4,4'-diphenoxylbenzenone-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene

anhydride compds. and phthalic acid anhydride 292857-69-3DP, 4,4'-Bis(3-aminophenoxy)biphenyl-3,3'-diamino-4-phenoxybenzophenone-bis(3,4-dicarboxyphenyl)sulfide dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-70-6DP, 4,4'-Bis(3-aminophenoxy)biphenyl-6,6'-bis(3-aminophenoxy)3,3,3',3'-tetramethyl-1,1'-spirobiindan-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-71-7DP, 4,4'-Bis(3-aminophenoxy)biphenyl-2,6-bis(3-aminophenoxy)benzonitrile-1,4-bis(3,4-dicarboxyphenoxyl)benzene dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-72-8DP, 4,4'-Bis(3-aminophenoxy)biphenyl-2,6-Bis(3-Aminophenoxy)pyridine-1,4,5,8-naphthalenetetracarboxylic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-74-0DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-3,3',4,4'-benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl]sulfone-3,3'-diaminobiphenyl sulfone copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-75-1DP, 1,3-Bis(3-aminophenoxy)benzene-2,2-bis[3-(3-aminophenoxy)phenyl]propane-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride-pyromellitic dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 292857-76-2DP, 1,3-Bis[4-(4-aminophenoxy)-*a*,*a*-dimethylbenzyl]benzene-2,2-bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3-hexafluoropropane-1,4-bis(3,4-dicarboxyphenoxyl)benzene dianhydride-2,2-bis[(3,4-dicarboxyphenoxyl)phenyl]propane dianhydride copolymer, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293315-89-6DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293315-95-4DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293316-68-4DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293321-29-6DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293321-65-0DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293321-68-3DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293322-44-8DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293322-47-1DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293322-51-7DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293322-52-8DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293322-76-6DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293322-86-8DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293322-89-1DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293322-90-4DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293323-01-0DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293323-19-0DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride 293325-91-4DP, reaction product with dicarboxyphenyl acetylene anhydride compds. and phthalic acid anhydride

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(thermoplastic polyimide heat-resistant adhesives containing crosslinkable acetylene terminal groups)

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ACCESSION NUMBER: 2000:632036 HCAPLUS Full-text

DOCUMENT NUMBER: 133:239034

TITLE: Thermoplastic polyimide heat-resistant adhesives containing crosslinking terminal groups
INVENTOR(S): Ohkawa, Yuichi; Sakata, Yoshihiro; Okumura, Tomomi; Shibuya, Atsushi; Kuroki, Takashi; Oikawa, Hideaki

PATENT ASSIGNEE(S): Mitsui Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.

DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PRIORITY APPLN. INFO.:			JP 1998-374654 <--	A 19981228

ED Entered STN: 12 Sep 2000

AB The polyimides (A) are prepared by reacting a diamine monomer having three benzene rings and an aromatic tetracarboxylic dianhydride monomer first then adding one or two dicarboxylic acid anhydride mols. with C_nplbnd.C groups as terminal blocking agents and finally heat-treating the precursor polyamic acids (B) at higher temperature. Thus, reacting a mixture of 58.47 g 1,3-bis(3-aminophenoxy)benzene and 55.9 g 3,3',4,4'-biphenyltetracarboxylic acid anhydride in 266.87 g N-methyl-2-pyrrolidone at room temperature for 6 h then adding 1.24 g 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and 0.74 g phthalic acid anhydride and reacting for another 12 h gave a B with logarithmic viscosity of 0.45 dL/g and finally heating B solution at 100°, 200° and 250° for 1 h resp. gave an A with adhesive strength 2.08 kg/cm and good heat resistance.

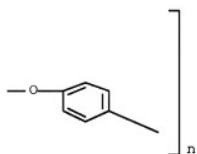
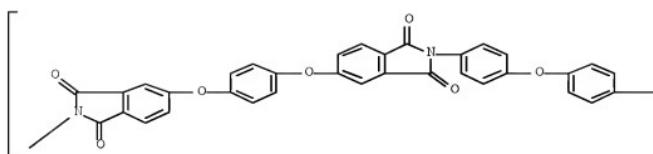
IT 25359-27-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride
26615-46-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride

34871-01-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride
54571-75-4DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-1,3-bis(4-aminophenoxy)benzene copolymer sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 54571-76-5DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-1,3-bis(3-aminophenoxy)benzene copolymer sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 72344-66-2DP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-1,3-bis(3-aminophenoxy)benzene copolymer sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and

phthalic acid anhydride 72344-67-3DP, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 72344-77-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 73154-72-0DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 79062-55-6DP, 1,3-Bis(3-aminophenoxy)benzene-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer srU, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 86068-20-4DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 101526-08-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 105009-93-6DP, reaction product with 1-Phenyl-2-[4-(3,4-Dicarboxyphenoxy)phenyl]Acetylene Anhydride and phthalic acid anhydride 106327-01-4DP, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 135876-25-4DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-86-0DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-88-2DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-90-6DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-92-8DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-96-2DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-98-4DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292624-00-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292624-02-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292624-04-5DP, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 292624-06-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292624-10-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292624-12-5DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292624-15-8DP, reaction product with 1-Phenyl-2-[4-(3,4-Dicarboxybenzoyl)Phenyl]Acylene Anhydride and phthalic acid anhydride 292624-18-1DP, reaction product with 1-Phenyl-2-[4-(3,4-Dicarboxyphenoxy)Phenyl]Acylene Anhydride and phthalic acid anhydride 292624-22-7DP, reaction product with 2-(3,4-Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride (thermoplastic polyimide heat-resistant adhesives containing crosslinking terminal groups)

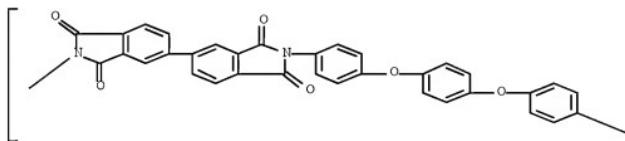
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CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)



RN 26615-46-3 HCAPLUS

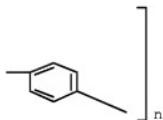
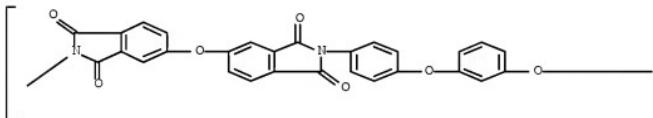
CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,4-phenyleneoxy-1,4-phenyleneoxy-1,4-phenyleneoxy] (CA INDEX NAME)





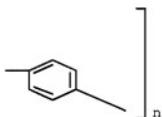
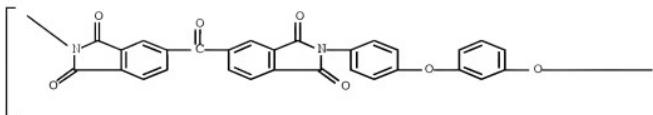
RN 34871-01-7 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,3-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)



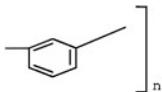
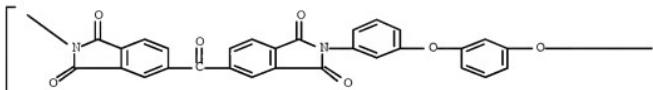
RN 54571-75-4 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,3-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)



RN 54571-76-5 HCPLUS

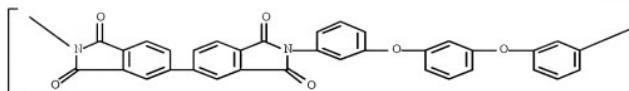
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenyleneoxy] (CA INDEX NAME)



RN 72344-66-2 HCPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenyleneoxy-1,3-phenyleneoxy-1,3-phenyleneoxy] (CA INDEX NAME)

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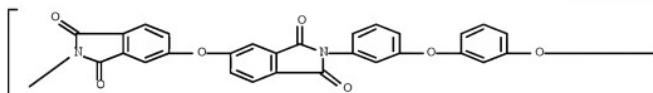
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RN 72344-67-3 HCPLUS

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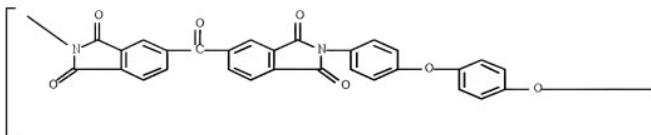
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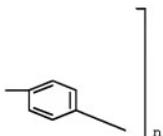
RN 72344-77-5 HCPLUS

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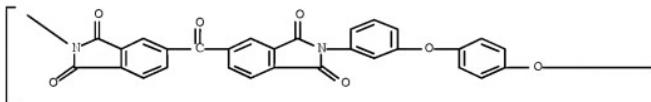
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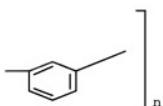
RN 73354-72-0 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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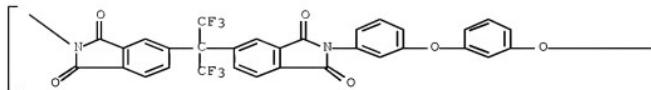


RN 79062-55-8 HCAPLUS

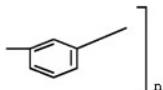
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-

(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenyleneoxy-1,3-phenylene] (CA INDEX NAME)

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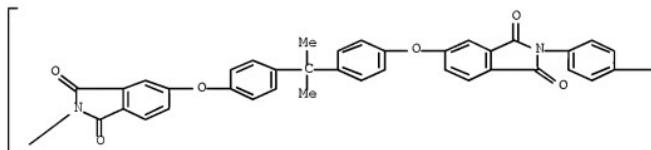
PAGE 1-B

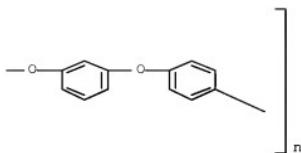


RN 86068-20-4 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,3-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)

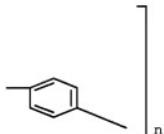
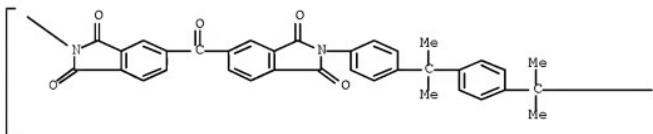
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RN 101526-08-3 HCPLUS

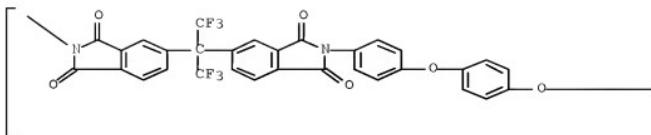
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene(1-methylethyldene)-1,4-phenylene] (9CI) (CA INDEX NAME)



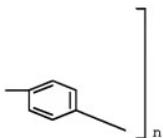
RN 105009-93-6 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)

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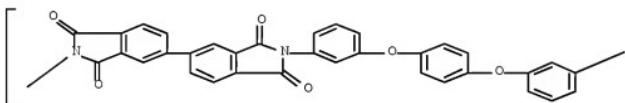
PAGE 1-B



RN 106827-01-4 HCAPLUS

CN Poly[(1',1',3,3'-tetrahydro-1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenyleneoxy-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)

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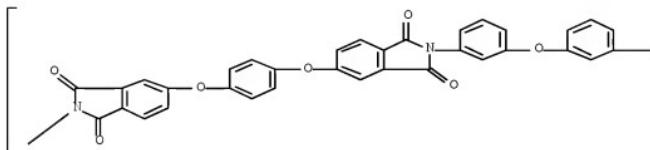
RN 135876-25-4 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-

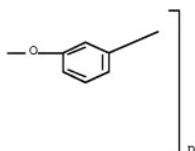
10/531,629

phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy(1,3-phenyleneoxy-1,3-phenylene] (CA INDEX NAME)

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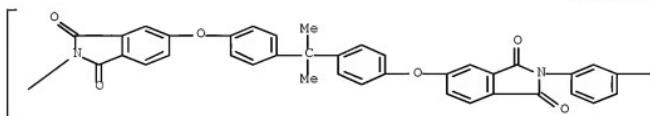
PAGE 1-B

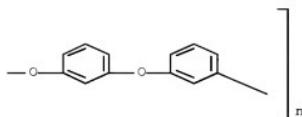


RN 292623-86-0 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethyldene)-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenyleneoxy-1,3-phenylene] (CA INDEX NAME)

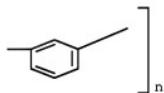
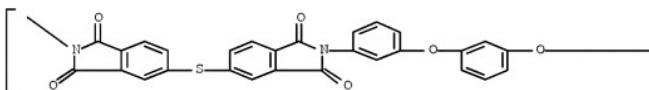
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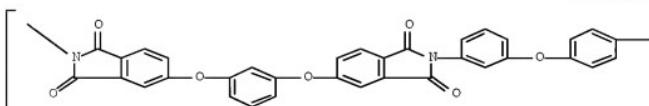
RN 292623-88-2 HCPLUS

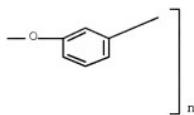
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)thio(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)



RN 292623-90-6 HCPLUS

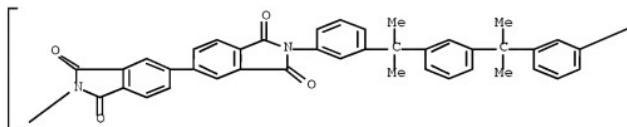
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,3-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,4-phenyleneoxy-1,3-phenylene] (9CI) (CA INDEX NAME)





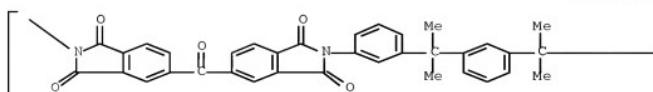
RN 292623-92-8 HCPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenylene(1-methylethyldiene)-1,3-phenylene(1-methylethyldiene)-1,3-phenylene] (9CI) (CA INDEX NAME)

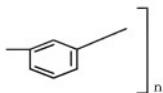


RN 292623-96-2 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylene(1-methylethyldiene)-1,3-phenylene(1-methylethyldiene)-1,3-phenylene] (9CI) (CA INDEX NAME)



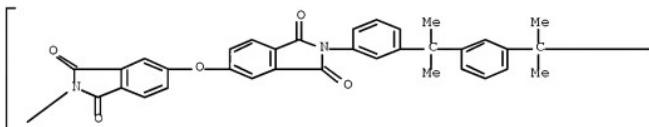
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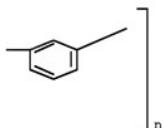
RN 292623-98-4 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylene(1-methylethylidene)-1,3-phenylene(1-methylethylidene)-1,3-phenylene] (9CI) (CA INDEX NAME)

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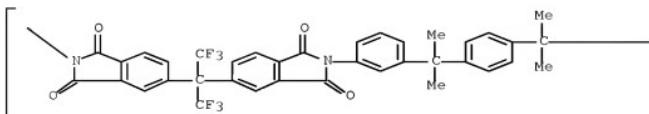
PAGE 1-B



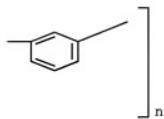
RN 292624-00-1 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylene(1-methylethylidene)-1,4-phenylene(1-methylethylidene)-1,3-phenylene] (9CI) (CA INDEX NAME)

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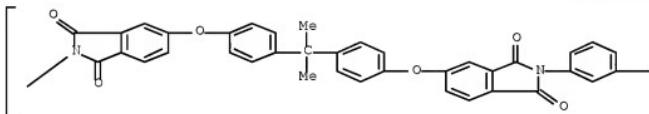
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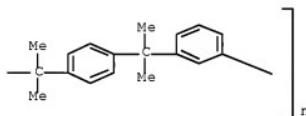
RN 292624-02-3 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylene(1-methylethylidene)-1,4-phenylene(1-methylethylidene)-1,3-phenylene] (9CI) (CA INDEX NAME)

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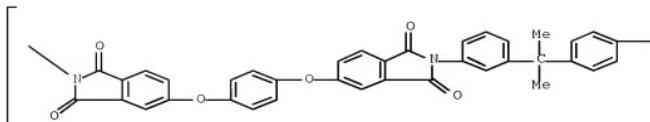
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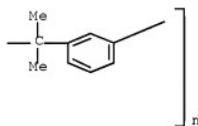
RN 292624-04-5 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylene(1-methylethylidene)-1,4-phenylene(1-methylethylidene)-1,3-phenylene] (9CI) (CA INDEX NAME)

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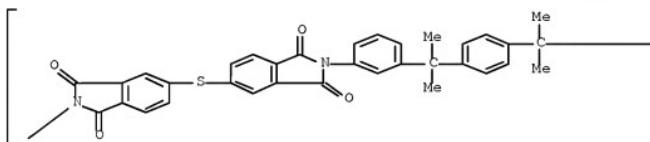
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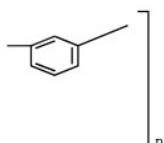
RN 292624-06-7 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)thio(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylene(1-methylethylidene)-1,4-phenylene(1-methylethylidene)-1,3-phenylene] (9CI) (CA INDEX NAME)

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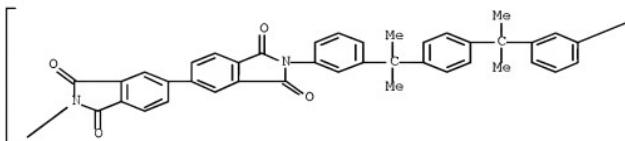
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RN 292624-10-3 HCAPLUS

CN Poly[(1,1',3,3'-tetrahydro-1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenylene(1-methylethylidene)-1,4-phenylene(1-methylethylidene)-1,3-phenylene] (9CI) (CA INDEX NAME)

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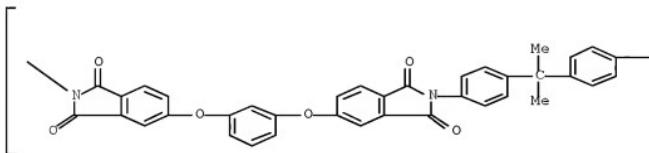
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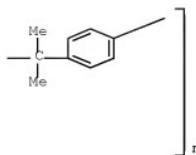
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RN 292624-12-5 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,3-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene(1-methylethylidene)-1,4-phenylene(1-methylethylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)

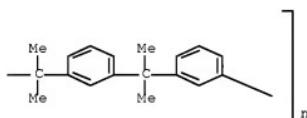
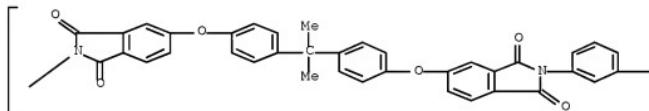
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RN 292624-15-8 HCAPLUS

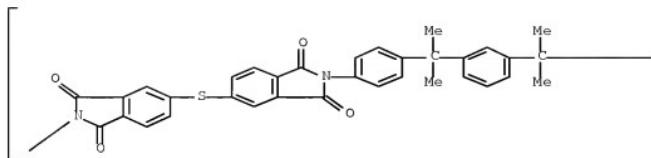
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylene(1-methylethylidene)-1,3-phenylene(1-methylethylidene)-1,3-phenylene] (9CI) (CA INDEX NAME)



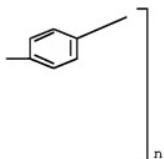
RN 292624-18-1 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)thio(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene(1-methylethylidene)-1,3-phenylene(1-methylethylidene)-1,4-phenylene] (9CI) (CA INDEX NAME)

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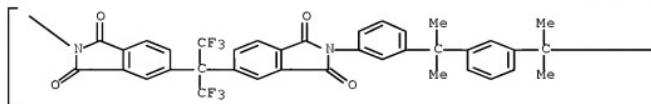
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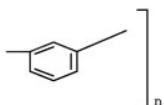
RN 292624-22-7 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylene(1-methylethylidene)-1,3-phenylene(1-methylethylidene)-1,3-phenylene] (9CI) (CA INDEX NAME)

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IC ICM C09J179-08
 ICS C08G073-10
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 35
 ST thermoplastic polyimide heat resistant adhesive; polyamic acid crosslinking terminal group polyimide; acetylene terminal group polyamic acid polyimide adhesive
 IT Adhesives
 (heat-resistant; thermoplastic polyimide heat-resistant adhesives containing crosslinking terminal groups)
 IT Polyamic acids
 (precursor of polyimides; thermoplastic polyimide heat-resistant adhesives containing crosslinking terminal groups)
 IT Polyimides, uses
 (thermoplastic polyimide heat-resistant adhesives containing crosslinking terminal groups)
 IT Adhesives
 (thermoplastic; thermoplastic polyimide heat-resistant adhesives containing crosslinking terminal groups)
 IT 85-44-9, 1,3-Isobenzofurandione 119389-05-8, 2-(3,4-Dicarboxyphenyl)-1-phenylacetylene anhydride 159507-09-2 186612-18-0 258288-68-5
 (terminal blocking agent; thermoplastic polyimide heat-resistant adhesives containing crosslinking terminal groups)
 IT 9043-08-7DP, 1,3-Bis(4-aminophenoxy)benzene-Pyromellitic Dianhydride copolymer sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 9043-13-4DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 25359-27-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 25464-28-2DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 26298-82-8DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 26615-46-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 34870-97-8DP, 1,3-Bis(4-aminophenoxy)benzene-Pyromellitic Dianhydride copolymer sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 34871-01-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 43198-23-8DP, 1,3-Bis(4-aminophenoxy)benzene-Pyromellitic Dianhydride copolymer, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 54053-19-9DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-1,3-bis(3-aminophenoxy)benzene copolymer, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 54570-88-6DP, 1,3-Bis(3-aminophenoxy)benzene-pyromellitic dianhydride copolymer, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 54570-89-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 54570-90-ODP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-1,3-bis(4-aminophenoxy)benzene copolymer, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 54571-73-2DP, 1,3-Bis(3-aminophenoxy)benzene-pyromellitic dianhydride copolymer polyimide sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid

anhydride 54571-74-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 54571-75-4DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-1,3-bis(4-aminophenoxy)benzene copolymer sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 54571-76-5DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-1,3-bis(3-aminophenoxy)benzene copolymer sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 54908-94-0DP, reaction product with 2-(3,4-Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 59113-58-5DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 59326-57-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 72344-66-2DP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-1,3-bis(3-aminophenoxy)benzene copolymer sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 72344-67-3DP, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 72344-77-5DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 72356-03-7DP, 3,3',4,4'-Biphenyltetracarboxylic acid anhydride-1,3-bis(3-aminophenoxy)benzene copolymer, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 72356-21-9DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 72950-08-4DP, 3,3',4,4'-Biphenyloxytetracarboxylic dianhydride-1,3-bis(4-aminophenoxy)benzene copolymer, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 72950-08-4DP, 1,3-Bis(3-aminophenoxy)benzene-3,3',4,4'-diphenyl ether tetracarboxylic dianhydride copolymer, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 73354-72-0DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 77833-86-4DP, 1,4-Bis(3-aminophenoxy)benzene-Pyromellitic Dianhydride copolymer, reaction product with 2-(3,4-Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 79062-55-8DP, 1,3-Bis(3-aminophenoxy)benzene-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 79062-58-1DP, 1,3-Bis(3-aminophenoxy)benzene-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride copolymer, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 86068-20-4DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 86068-27-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 94171-18-3DP, reaction product with 2-(3,4-Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 94186-89-7DP, 1,3-Bis(3-aminophenoxy)benzene-pyromellitic dianhydride copolymer, polyamic acid sru, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 94186-90-0DP, reaction product with 2-(3,4-Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 101359-52-8DP, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 101359-53-9DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 101505-27-5DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene

anhydride and phthalic acid anhydride 101526-03-3DP, reaction product with 2-(3,4-dicarboxyphenoxy)-1-phenylacetylene anhydride and phthalic acid anhydride 104708-55-6DP, reaction product with 1-Phenyl-2-[4-(3,4-Dicarboxyphenoxy)phenyl]Acetylene Anhydride and phthalic acid anhydride 105069-93-6DP, reaction product with 1-Phenyl-2-[4-(3,4-Dicarboxyphenoxy)phenyl]Acetylene Anhydride and phthalic acid anhydride 105038-78-6DP, 1,4-Bis(4-aminophenoxy)benzene-2,2-Bis(3,4-Dicarboxyphenoxy)Hexafluoropropane Dianhydride copolymer, reaction product with 1-Phenyl-2-[4-(3,4-Dicarboxyphenoxy)phenyl]Acetylene Anhydride and phthalic acid anhydride 106826-81-7DP, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 106827-01-4DP, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 106907-30-6DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 106907-31-7DP, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 110712-63-5DP, reaction product with 2-(3,4-Dicarboxyphenoxy)-1-Phenylacetylene Anhydride and phthalic acid anhydride 113742-50-0DP, reaction product with 2-(3,4-dicarboxyphenoxy)-1-phenylacetylene anhydride and phthalic acid anhydride 135676-35-4DP, reaction product with 2-(3,4-dicarboxyphenoxy)-1-phenylacetylene anhydride and phthalic acid anhydride 135876-42-5DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 148046-45-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 148708-45-6DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 153966-35-9DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 167857-86-5DP, reaction product with 2-(3,4-Dicarboxyphenoxy)-1-Phenylacetylene Anhydride and phthalic acid anhydride 223240-99-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 225110-58-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-85-9DP, 1,3-Bis(3-aminophenoxy)benzene-2,2-bis[(3,4-dicarboxyphenoxy)phenyl]propane dianhydride copolymer, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-86-8DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-87-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-88-2DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-89-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-90-5DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-91-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-92-8DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-93-9DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-94-0DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 292623-95-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid

anhydride 292623-96-2DP, reaction product with
 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid
 anhydride 292623-97-3DP, reaction product with 2-(3,4-
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 group-containing dicarboxylic anhydride and phthalic anhydride
 292624-04-5DP, reaction product with acetylene group-containing
 dicarboxylic anhydride and phthalic anhydride 292624-05-6DP,
 reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene
 anhydride and phthalic acid anhydride 292624-06-7DP,
 reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene
 anhydride and phthalic acid anhydride 292624-07-8DP, reaction
 product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and
 phthalic acid anhydride 292624-08-9DP, reaction product with
 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid
 anhydride 292624-09-0DP, reaction product with 2-(3,4-
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 anhydride 292624-10-1DP, reaction product with
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 dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid
 anhydride 292624-12-5DP, reaction product with
 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid
 anhydride 292624-14-7DP, reaction product with 1-Phenyl-2-[4-(3,4-
 Dicarboxybenzoyl)Phenyl]Acetylene Anhydride and phthalic acid
 anhydride 292624-15-8DP, reaction product with
 1-Phenyl-2-[4-(3,4-Dicarboxybenzoyl)Phenyl]Acetylene Anhydride and
 phthalic acid anhydride 292624-17-0DP, reaction product with
 1-Phenyl-2-[4-(3,4-Dicarboxyphenoxy)Phenyl]Acetylene Anhydride and
 phthalic acid anhydride 292624-18-1DP, reaction product with
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 phthalic acid anhydride 292624-21-6DP, reaction product with
 2-(3,4-Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid
 anhydride 292624-22-7DP, reaction product with
 2-(3,4-Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid
 anhydride 292624-23-8DP, reaction product with 2-(3,4-
 Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid
 anhydride 292624-24-9DP, reaction product with 2-(3,4-
 Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid
 anhydride 292624-25-0DP, reaction product with 2-(3,4-
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 anhydride 292624-26-1DP, reaction product with 2-(3,4-
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 anhydride 292624-27-2DP, reaction product with 2-(3,4-
 Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid
 anhydride 292624-28-3DP, reaction product with 2-(3,4-
 Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid
 anhydride 292624-29-4DP, reaction product with 2-(3,4-
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 anhydride 292624-30-7DP, reaction product with 2-(3,4-

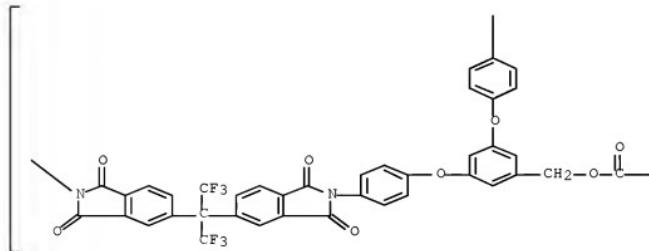
Dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 292624-31-8DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene Anhydride and phthalic acid anhydride 292624-32-9DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 292624-33-0DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 292624-34-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 292624-35-2DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 292624-36-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 292624-37-4DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 292624-38-5DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 292624-39-6DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride 293306-06-6DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293306-11-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293306-17-9DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293306-40-8DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293306-41-9DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293306-44-2DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293307-05-8DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293307-08-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293308-20-0DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293308-29-9DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293308-31-3DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293310-17-5DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293310-41-5DP, reaction product with acetylene group-containing dicarboxylic anhydride and phthalic anhydride 293310-47-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293310-51-7DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293310-55-1DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293314-86-0DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-phenylacetylene anhydride and phthalic acid anhydride 293314-87-1DP, reaction product with 1-Phenyl-2-[4-(3,4-Dicarboxybenzoyl)Phenyl]Acetylene Anhydride and phthalic acid anhydride 293314-94-0DP, reaction product with 1-Phenyl-2-[4-(3,4-Dicarboxyphenoxy)Phenyl]Acetylene Anhydride and phthalic acid anhydride 293315-17-0DP, reaction product with 2-(3,4-dicarboxyphenyl)-1-Phenylacetylene Anhydride and phthalic acid anhydride

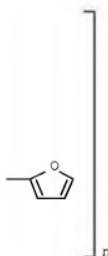
(thermoplastic polyimide heat-resistant adhesives containing

(crosslinking terminal groups)

L45 ANSWER 12 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2000:579517 HCPLUS Full-text
 DOCUMENT NUMBER: 133:327502
 TITLE: Photosensitive polyimide using fullerene as photosensitizer
 AUTHOR(S): Takeuchi, Etsu; Tajima, Yusuke; Shigemitsu, Yasuo;
 Takeuchi, Kazuo; Hosomi, Takeshi
 CORPORATE SOURCE: Graduate School of Science and Engineering,
 Saitama University, Urawa, 338-8570, Japan
 SOURCE: Journal of Photopolymer Science and Technology (2000), 13(2), 351-356
 CODEN: JSTEEW; ISSN: 0914-9244
 PUBLISHER: Technical Association of Photopolymers, Japan
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 23 Aug 2000
 AB Photosensitive polyimide with high thermal stability was prepared from the new diamine monomer containing a furan moiety. UV irradiation and development of the polyimide in the presence of fullerene sensitizer produced good quality patterns. Post-exposure baking improved its photosensitivity. A thick polyimide film (10 μm) pattern was also be obtained. Thermal stability of the polyimide, characterized by TGA, was excellent even without any high temperature annealing.
 IT 302591-47-5B, oxidized
 (lithog. imaging using photosensitive polyimide and fullerene sensitizer)
 RN 302591-47-5 HCPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy[5-[(2-furanylcarbonyl)oxy]methyl]-1,3-phenylene]oxy-1,4-phenylene] (9CI) (CA INDEX NAME)

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- CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST polyimide lithog fullerene photosensitizer photooxidn singlet oxygen photocrosslinking; thermal stability polyimide photoresist photocrosslinking fullerene photosensitizer lithog
- IT Photoresists
 - (lithog. imaging using photosensitive polyimide and fullerene sensitizer for singlet oxygen induced photooxidn. and crosslinking)
- IT Oxidation, photochemical
 - (lithog. imaging using photosensitive polyimide with furan pendant group and fullerene sensitizer for singlet oxygen induced photooxidn. and crosslinking)
- IT Crosslinking
 - (photochem.; lithog. imaging using photosensitive polyimide and fullerene sensitizer for singlet oxygen induced photooxidn. and crosslinking)
- IT Polyethers, reactions
 - Polyethers, reactions
 - Polyethers, reactions
 - (polyamic acid-, fluorine-containing; preparation of thermally stable polyimide for lithog. photoimaging with fullerene photosensitizer)
- IT Fluoropolymers, reactions
 - (polyamic acid-polyether; preparation of thermally stable polyimide for lithog. photoimaging with fullerene photosensitizer)
- IT Polyamic acids
 - Polyamic acids
 - Polyamic acids
 - (polyether-, fluorine-containing; preparation of thermally stable polyimide for lithog. photoimaging with fullerene photosensitizer)
- IT Polyimides, processes
 - Polyimides, processes
 - Polyimides, processes
 - (polyether-, fluorine-containing; thermally stable photosensitive polyimide and its lithog. imaging based on fullerene sensitized photooxidn. and crosslinking)
- IT Fluoropolymers, processes
 - (polyether-polyimide-; thermally stable photosensitive polyimide and its lithog. imaging based on fullerene sensitized photooxidn. and crosslinking)

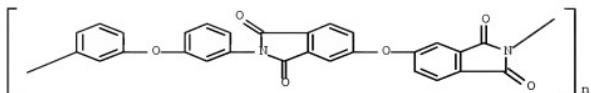
- IT Polyethers, processes
 Polyethers, processes
 Polyethers, processes
 (poymide-, fluorine-containing; thermally stable photosensitive polyimide and its lithog. imaging based on fullerene sensitized photooxidn. and crosslinking)
- IT Thermal stability
 (thermally stable polyimide for lithog. photoimaging with fullerene photosensitizer)
- IT 302591-47-5D, oxidized
 (lithog. imaging using photosensitive polyimide and fullerene sensitizer)
- IT 302809-77-4DP, oxidized
 (lithog. imaging using photosensitive polyimide and fullerene sensitizer)
- IT 99685-96-8, [5,6]Fullerene-C60-1h
 (photosensitizer; lithog. imaging using photosensitive polyimide and fullerene sensitizer for singlet oxygen induced photooxidn. and crosslinking)
- IT 302809-77-4P
 (preparation of thermally stable polyimide for lithog. photoimaging with fullerene photosensitizer)
- IT 7782-44-7, Oxygen, processes
 (singlet excited; lithog. imaging using photosensitive polyimide and fullerene sensitizer for singlet oxygen induced photooxidn. and crosslinking)
- IT 79-29-8, 1,1,2,2-Tetramethylmethane 96-48-0, γ -Butyrolactone
 (solvent; synthesis of thermally stable polyimide containing furan pendant group for lithog. photoimaging with fullerene photosensitizer)
- IT 302591-39-5P, 3,5-Bis(4-aminophenoxy)benzyl-2-furoate
 (synthesis of thermally stable polyimide containing furan pendant group for lithog. photoimaging with fullerene photosensitizer)
- IT 1107-00-2, 6FDA
 (synthesis of thermally stable polyimide containing furan pendant group for lithog. photoimaging with fullerene photosensitizer)
- IT 302591-43-1P 302591-47-5P
 (thermally stable photosensitive polyimide and its lithog. imaging based on fullerene sensitized photooxidn. and crosslinking)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

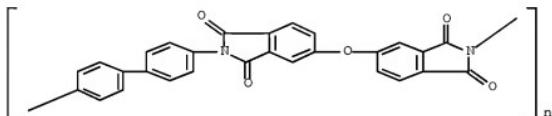
L45 ANSWER 13 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2000:117108 HCPLUS Full-text
 DOCUMENT NUMBER: 132:152356
 TITLE: Aromatic polyimides containing crosslinkable groups and process for their producing
 INVENTOR(S): Shibuya, Atsushi; Okumura, Tomomi; Oikawa, Hideaki; Sakata, Yoshihiro; Kuroki, Takashi; Okawa, Yuichi; Tamai, Shoji
 PATENT ASSIGNEE(S): Mitsui Chemicals, Incorporated, Japan
 SOURCE: PCT Int. Appl., 190 pp.
 CODEN: PIXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PRIORITY APPLN. INFO.:			JP 1998-223362 <--	A 19980806
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			WO 1999-JP4273 <--	W 19990806

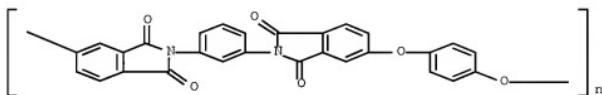
- ED Entered STN: 18 Feb 2000
- AB The polyimides comprise the backbone structure of any of various known thermoplastic polyimides and bear crosslinkable groups in their structure. The polyimides are significantly superior in heat resistance, chemical resistance, and mech. properties to the known polyimides while retaining the intact moldability, sliding properties, low water absorption, elec. properties, thermal oxidative stability, and radiation resistance which are characteristic of the known polyimide structures. Examples of the polyimides include those derived from tetracarboxylic anhydrides with diamino ether compds., aromatic diamines containing ketone, sulfone or/and sulfide groups, and modified with, e.g., acetylene groups.
- IT 25722-34-3DP, reaction products with reactive end-capping agents 26615-47-4DP, reaction products with reactive end-capping agents 28780-59-8DP, reaction products with reactive end-capping agents 32201-92-4DP, reaction products with reactive end-capping agents 91993-30-5DP, reaction products with reactive end-capping agents 110563-86-4DP, reaction products with reactive end-capping agent mixture 110563-86-5DP, reaction products with reactive end-capping agent mixture 116964-65-9DP, reaction products with reactive end-capping agent mixture 117548-60-2DP, reaction products with reactive end-capping agent mixture 129401-97-4DP, reaction products with reactive end-capping agent mixture 156261-34-6DP, reaction products with reactive end-capping agents
 (aromatic polyimides containing crosslinkable groups and process for producing)
- RN 25722-34-3 HCPLUS
- CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene] (9CI)
 (CA INDEX NAME)



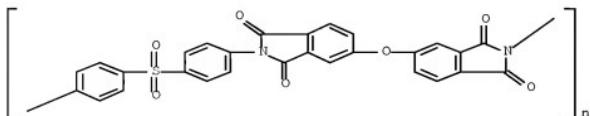
RN 26615-47-4 HCPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[1,1'-biphenyl]-4,4'-diyl] (9CI) (CA INDEX NAME)



RN 28780-59-8 HCPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylene(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenyleneoxy] (9CI) (CA INDEX NAME)

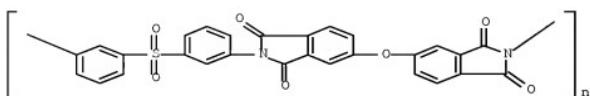


RN 32201-82-4 HCPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylenesulfonyl-1,4-phenylene] (CA INDEX NAME)



RN 91993-30-5 HCPLUS

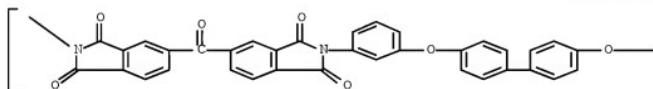
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylenesulfonyl-1,3-phenylene] (CA INDEX NAME)



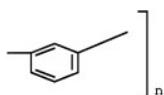
RN 110563-85-4 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (CA INDEX NAME)

PAGE 1-A



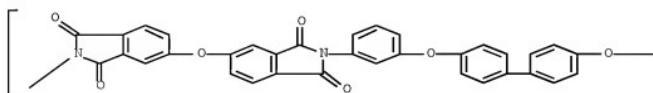
PAGE 1-B

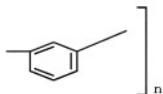


RN 110563-86-5 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (CA INDEX NAME)

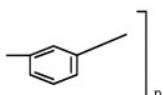
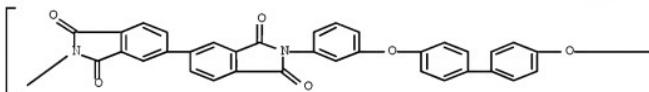
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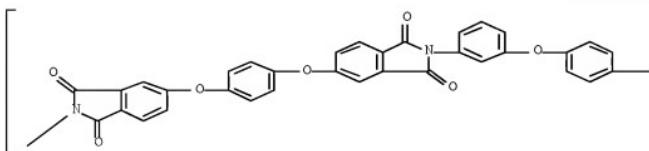
RN 116964-65-9 HCPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (9CI) (CA INDEX NAME)

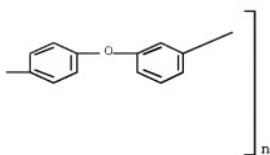


RN 117548-00-2 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenyleneoxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (9CI) (CA INDEX NAME)



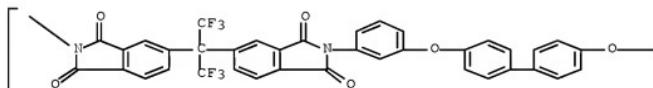
PAGE 1-B



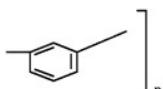
RN 129401-97-4 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy[1,1'-biphenyl]-4,4'-diyloxy-1,3-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A

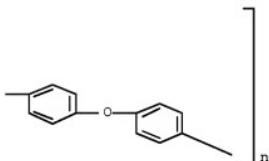
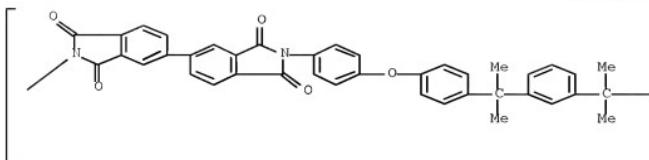


PAGE 1-B



RN 156261-34-6 HCPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,4-phenyleneoxy-1,4-phenylene(1-methylethylidene)-1,3-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM C08G073-10
 CC 35-5 (Chemistry of Synthetic High Polymers)
 ST thermoplastic arom polyimide acetylene group crosslinkable; chem
 resistance thermoplastic arom polyimide; heat
 resistance thermoplastic arom polyimide
 IT 62-53-3DP, Aniline, reaction products with polyimide based polymers
 and other reactive capping agents 85-44-9DP, Phthalic anhydride,
 reaction products with polyimide based polymers and other reactive
 capping agents 90-41-5DP, 2-Aminobiphenyl, reaction products with
 polyimide based polymers and other reactive capping agents
 108-31-6DP, Maleic anhydride, reaction products with polyimide based
 polymers and other reactive capping agents 616-02-4DP,
 2-Methylmaleic anhydride, reaction products with polyimide based
 polymers and other reactive capping agents 826-62-0DP,
 5-Norbornene-2,3-dicarboxylic anhydride, reaction products with
 polyimide based polymers and other reactive capping agents
 15411-43-5DP, 3-Aminostyrene, reaction products with polyimide based
 polymers and other reactive capping agents 25722-34-3DP,
 reaction products with reactive end-capping agents 25736-02-1DP,
 4,4'-Diaminodiphenyl ether-4,4'-Oxydiphthalic dianhydride copolymer,
 reaction products with reactive end-capping agents 25916-12-5DP,
 Bis(3,4-dicarboxyphenyl) ether dianhydride-3,3'-diaminodiphenyl ether
 copolymer, reaction products with reactive end-capping agents
 26615-47-4DP, reaction products with reactive end-capping
 agents 28390-51-4DP, 1,4-Bis(3,4-dicarboxyphenoxy)benzene
 dianhydride-m-phenylenediamine copolymer, reaction products with
 reactive end-capping agents 28780-59-6DP, reaction products
 with reactive end-capping agents 32201-82-1DP, reaction

products with reactive end-capping agents 51624-44-3DP,
 3-(Phenylethynyl)aniline, reaction products with polyimide based
 polymers and other reactive capping agents 54060-30-9DP,
 3-Ethynylaniline, reaction products with polyimide based polymers and
 other reactive capping agents 64427-92-5DP, reaction products with
 reactive end-capping agents 73819-76-8DP, 4-Ethynylphthalic
 anhydride, reaction products with polyimide based polymers and other
 reactive capping agents 74951-85-2DP, Bis[4-(3-aminophenoxy)phenyl]
 sulfone-pyromellitic dianhydride copolymer, reaction products with
 reactive end-capping agent mixture 74951-91-0DP, 4,4'-Diaminodiphenyl
 sulfone, 4,4'-oxydiphtalic dianhydride copolymer, reaction products
 with reactive end-capping agents 74970-08-4DP, reaction products
 with reactive end-capping agent mixture 91993-30-5DP, reaction
 products with reactive end-capping agents 92004-90-5DP,
 3,3'-Diaminodiphenyl sulfone-4,4'-Oxydiphtalic dianhydride copolymer,
 reaction products with reactive end-capping agents 101061-76-1DP,
 reaction products with reactive end-capping agents 104491-51-2DP,
 reaction products with reactive end-capping agents 104764-01-4DP,
 3,3',4,4'-Biphenyltetracarboxylic dianhydride-3,4'-diaminodiphenyl
 ether copolymer, reaction products with reactive end-capping agents
 105030-40-0DP, 3,4'-Diaminodiphenyl ether-4,4'-Oxydiphtalic
 dianhydride copolymer, reaction products with reactive end-capping
 agents 105156-69-2DP, 4,4'-Bis(3-aminophenoxy)biphenyl-pyromellitic
 dianhydride copolymer sru, reaction products with reactive end-capping
 agent mixture 105218-97-1DP, 4,4'-Bis(3-aminophenoxy)biphenyl-
 pyromellitic dianhydride copolymer, reaction products with reactive
 end-capping agent mixture 105241-60-9DP, Bis[4-(3-aminophenoxy)phenyl]
 ketone-pyromellitic dianhydride copolymer, reaction products with
 reactive end-capping agent mixture 105359-96-4DP, reaction products
 with reactive end-capping agent mixture 110563-82-1DP, reaction
 products with reactive end-capping agent mixture 110563-85-4DP
 , reaction products with reactive end-capping agent mixture
 110563-86-5DP, reaction products with reactive end-capping
 agent mixture 110586-37-3DP, Bis[4-(3-aminophenoxy)phenyl]
 sulfide-pyromellitic dianhydride copolymer, reaction products with
 reactive end-capping agent mixture 110586-39-5DP, 3,3',4,4'-
 Benzophenonetetracarboxylic dianhydride-4,4'-bis(3-
 aminophenoxy)biphenyl copolymer, reaction products with reactive
 end-capping agent mixture 110586-40-8DP, 4,4'-Bis(3-
 aminophenoxy)biphenyl-4,4'-oxydiphtalic dianhydride copolymer,
 reaction products with reactive end-capping agent mixture
 110656-20-7DP, reaction products with reactive end-capping agents
 110712-31-7DP, reaction products with reactive end-capping agents
 110749-59-2DP, 4,4'-Bis(3-aminophenoxy)biphenyl-4,4'-diaminodiphenyl
 ether-pyromellitic dianhydride copolymer, reaction products with
 reactive end-capping agent mixture 110970-31-5DP, 1,3-Bis(3-
 aminophenoxy)benzene-4,4'-bis(3-aminophenoxy)biphenyl-pyromellitic
 dianhydride copolymer, reaction products with reactive end-capping
 agent mixture 116964-55-7DP, 3,3',4,4'-Biphenyltetracarboxylic
 dianhydride-4,4'-bis(3-aminophenoxy)biphenyl copolymer, reaction
 products with reactive end-capping agent mixture 116964-65-9DP
 , reaction products with reactive end-capping agent mixture
 117547-82-7DP, reaction products with reactive end-capping agent mixture
 117548-90-2DP, reaction products with reactive end-capping
 agent mixture 119389-05-8DP, reaction products with polyimide based
 polymers and other reactive capping agents 122590-18-5DP, reaction
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 agents 129401-96-3DP, reaction products with reactive end-capping
 agent mixture 129401-97-4DP, reaction products with reactive
 end-capping agent mixture 129676-85-3DP, reaction products with

reactive end-capping agent mixture 129676-86-4DP, 4,4'-Bis(3-aminophenoxy)biphenyl-3,3'-diaminodiphenyl ether-pyromellitic dianhydride copolymer, reaction products with reactive end-capping agent mixture 129676-89-7DP, 3,3',4,4'-Biphenyltetracarboxylic dianhydride-4,4'-bis(3-aminophenoxy)biphenyl-4,4'-diaminodiphenyl ether-pyromellitic dianhydride copolymer, reaction products with reactive end-capping agent mixture 136231-91-9DP, reaction products with reactive end-capping agents 142280-61-3DP, reaction products with reactive end-capping agents 145584-79-8DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-4,4'-bis(3-aminophenoxy)biphenyl-pyromellitic dianhydride copolymer, reaction products with reactive end-capping agents 151958-39-3DP, reaction products with reactive end-capping agents 155912-62-2DP, 3,3',4,4'-Biphenyltetracarboxylic dianhydride-4,4'-bis(3-aminophenoxy)biphenyl-pyromellitic dianhydride copolymer, reaction products with reactive end-capping agent mixture 156261-33-5DP, reaction products with reactive end-capping agent mixture 156261-34-6DP, reaction products with reactive end-capping agents 159507-07-0DP, 3,3',4,4'-Biphenyltetracarboxylic dianhydride-bis(3,4-dicarboxyphenyl) ether dianhydride-3,4'-diaminodiphenyl ether copolymer, reaction products with reactive end-capping agents 181709-21-7DP, reaction products with reactive end-capping agent mixture 181709-24-0DP, reaction products with reactive end-capping agent mixture 186612-18-0DP, reaction products with polyimide based polymers and other reactive capping agents 258288-02-7DP, 2,2-Bis[3-(3-aminophenoxy)phenyl]-1,1,1,3,3,3-hexafluoropropane-pyromellitic dianhydride copolymer, reaction products with reactive end-capping agent mixture 258288-06-1DP, 1,3-Bis(3-aminophenoxy)-4-trifluoromethylbenzene;4,4'-bis(3-aminophenoxy)biphenyl;pyromellitic dianhydride copolymer, reaction products with reactive end-capping agent mixture 258288-09-4DP, reaction products with reactive end-capping agent mixture 258288-11-8DP, reaction products with reactive end-capping agent mixture 258288-13-0DP, reaction products with reactive end-capping agent mixture 258288-15-2DP, reaction products with reactive end-capping agent mixture 258288-17-4DP, 3,3',4,4'-Biphenyltetracarboxylic dianhydride-4,4'-bis(3-aminophenoxy)biphenyl-3,3'-diaminodiphenyl ether-pyromellitic dianhydride copolymer, reaction products with reactive end-capping agent mixture 258288-19-6DP, 1,3-Bis(3-aminophenoxy)benzene-4,4'-bis(3-aminophenoxy)biphenyl-3,3'-diaminodiphenyl ether-pyromellitic dianhydride copolymer, reaction products with reactive end-capping agent mixture 258288-21-0DP, reaction products with reactive end-capping agent mixture 258288-23-2DP, 3,3',4,4'-Biphenyltetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl]ketone-pyromellitic dianhydride copolymer, reaction products with reactive end-capping agent mixture 258288-25-4DP, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-bis[4-(3-aminophenoxy)phenyl]sulfone-3,3'-diamino-4,4'-diphenoxobenzophenone copolymer, reaction products with reactive end-capping agent mixture 258288-27-6DP, reaction products with reactive end-capping agent mixture 258288-35-6DP, reaction products with reactive end-capping agents 258288-37-8DP, reaction products with reactive end-capping agents 258288-41-4DP, 1,4-Bis(3,4-dicarboxyphenoxy)benzene dianhydride-4,4'-diaminodiphenyl ether-3,3'-diaminodiphenyl ether copolymer, reaction products with reactive end-capping agents 258288-43-6DP, reaction products with reactive end-capping agents 258288-45-8DP, reaction products with reactive end-capping agents 258288-47-0DP, reaction products with reactive end-capping agents 258288-49-2DP, reaction products with reactive end-capping agents 258288-52-7DP, reaction products with reactive end-capping agents

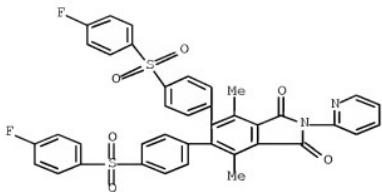
258288-55-0DP, reaction products with reactive end-capping agents
 258288-58-3DP, reaction products with reactive end-capping agents
 258288-62-9DP, reaction products with polyimide based polymers and
 other reactive capping agents 258288-66-3DP, reaction products with
 polyimide based polymers and other reactive capping agents
 258288-68-5DP, reaction products with polyimide based polymers and
 other reactive capping agents
 (aromatic polyimides containing crosslinkable groups and process for
 producing)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

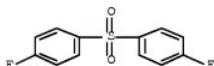
L45 ANSWER 14 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:805825 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:108403
 TITLE: Poly(aryl ether)s containing o-terphenyl subunits.
 II. Random poly(ether sulfone)s
 AUTHOR(S): MacKinnon, Sean M.; Bender, Timothy P.; Wang, Zhi
 Yuan
 CORPORATE SOURCE: Department of Chemistry, Carleton University,
 Ottawa, ON, K1S 5B6, Can.
 SOURCE: Journal of Polymer Science, Part A: Polymer
 Chemistry (2000), 38(1), 9-17
 CODEN: JPACEC; ISSN: 0887-624X
 PUBLISHER: John Wiley & Sons, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 22 Dec 1999
 AB The prepare of N-2-pyridyl-4,4"-bis(4-fluorobenzenesulfonyl)-3',6'- dimethyl-
 o-terphenyl-4',5'-dicarboximide and its copolymer. with bisphenol A and 4,4'-
 difluorophenyl sulfone are reported. The incorporation of this monomer has an
 observable effect the Tg of the polymer and its tendency for macrocyclic
 oligomers during polymerization Replacement of the pyridyl imide group via a
 transimidization reaction with propargyl amine proceeded quant. and without
 polymer degradation The acetylene containing polymer was crosslinked by
 simple thermal treatment, resulting in an increase in the Tg and improved
 solvent resistance.
 IT 255840-99-4DP, reaction products with propargylamine
 (preparation and crosslinking of)
 RN 255840-99-4 HCAPLUS
 CN 1H-Isocindole-1,3(2H)-dione, 5,6-bis[4-[(4-
 fluorophenyl)sulfonyl]phenyl]-4,7-dimethyl-2-(2-pyridinyl)-, polymer
 with 4,4'-(1-methylethyldiene)bis[phenol] and 1,1'-sulfonylbis[4-
 fluorobenzene] (9CI) (CA INDEX NAME)

CM 1

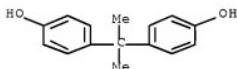
CRN 255840-98-3
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CM 2

CRN 383-29-9
CMF C12 H8 F2 O2 S

CM 3

CRN 80-05-7
CMF C15 H16 O2

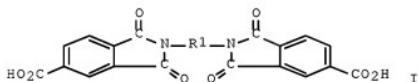
(prepн. and properties of
 CC 35-5 (Chemistry of Synthetic High Polymers)
 IT 2450-71-7DP, Propargylamine, reaction products with
 terphenyldicarboximide derivative copolymer 255940-99-4DP,
 reaction products with propargylamine
 (preparation and crosslinking of)
 IT 255940-99-4DP, reaction products with propargylamine
 (preparation and properties of)
 REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L45 ANSWER 15 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1999:312766 HCPLUS Full-text
 DOCUMENT NUMBER: 130:352796

TITLE: Siloxane-containing poly(amide-imides), their manufacture from diimide dicarboxylic acids and diisocyanates, and their varnishes
 INVENTOR(S): Takeuchi, Kazumasa; Nanaumi, Tadashi
 PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11130832	A	19990518	JP 1997-297203 <--	19971029
JP 3947944	B2	20070725		
PRIORITY APPLN. INFO.:			JP 1997-297203 <--	19971029

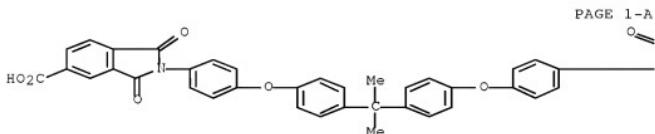
ED Entered STN: 21 May 1999
 GI



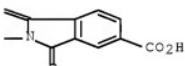
AB The title solvent-soluble polymers with high mol. weight and good film formability, useful for heat-resistant varnishes, adhesives, adhesive films, etc., are manufactured by (1) reacting (A) diamines having ≥ 3 aromatic rings, (B) siloxane diamines, and (C) trimellitic anhydride at mol. ratio A/B = 99.9/0.1-0.1/99.9 and (A + B)/C = 1/2.05-1/2.20 in aprotic polar solvents at 50-90°, (2) adding 0.1-0.5 part (based on the solvents) aromatic hydrocarbons, which are azeotropically distillable with H₂O, to the reaction system, (3) allowing the system to react at 120-180° to give diimide dicarboxylic acid mixts. I [R = R₁ and R₂; R₁ = XOC₆H₄I₂; R₂ = R₃(SiR₅R₇O)nSiR₆R₈R₄; X = CMe₂(C₆H₄)₂, SO₂(C₆H₄)₂, C(CF₃)₂(C₆H₄)₂, CH₂(C₆H₄)₂, (C₆H₄)₂, O(C₆H₄)₂, C(O₂C₆H₄)₂, C₆H₄; R₃, R₄ = divalent organic group; R₅-8 = alkyl, (un)substituted Ph; n = 1-50], and (4) reacting I with diisocyanates R₉(NCO)₂ (R₉ = divalent aliphatic, alicyclic aliph) at mol. ratio (A + B)/(diisocyanate) 1/1.05-1/1.50. The mixts. I may comprise 2,2-bis[4-[4-(5-hydroxycarbonyl-1,3-dione- isoindolino)phenoxy]phenyl]propane (II) and bis(5-hydroxycarbonyl-1,3-dione-isoindolino)propylpoly(dimethylsiloxane). Varnishes containing the resulting polymers are also claimed. Thus, II 0.16, X 22-161AS (siloxane diamine) 0.04, and trimellitic anhydride 0.42 mol were stirred in 560 g N-methyl-2-pyrrolidone at 80° for 30 min, mixed with 100 mL toluene, refluxed at .apprx.160°, and heated at .apprx.190° to remove toluene and give an mixture, which was reacted with 0.24 mol isophorone diisocyanate at 190° to give a varnish of a siloxane-containing polyamide-polyimide having weight-average mol. weight 69,000. A film prepared from the varnish had glass transition temperature 195°.

IT 125127-87-9DP, reaction products with trimellitic anhydride, polymers with siloxane diimide dicarboxylic acids and diisocyanates

(solvent-soluble siloxane-containing polyamide-polyimides with high mol. weight and good film formability, their manufacture, and their varnishes)
 RN 125127-87-9 HCPLUS
 CN 1H-Isoindole-5-carboxylic acid, 2,2'-{(1-methylethylidene)bis[4,1-phenyleneoxy-4,1-phenylene]}bis[2,3-dihydro-1,3-dioxo- (CA INDEX NAME)



PAGE 1-B



IC ICM C08G018-34
 ICS C08L079-08; C08L083-08
 CC 35-5 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 38, 42
 ST siloxane polyamide polyimide manuf varnish; heat resistance
 siloxane polyamide polyimide manuf; diimide dicarboxylic acid siloxane
 polyamide polyimide; bishydroxycarbonyldioneisoindolinophenoxyphenylpropane diimide dicarboxylic acid manuf; diamine siloxane diimide
 dicarboxylic acid manuf; trimellitic anhydride diimide dicarboxylic
 acid manuf; methylpyrrolidone aprotic polar solvent diimide
 dicarboxylic acid; arom hydrocarbon water azeotropic distn; toluene
 water azeotropic distn; isophorone diisocyanate siloxane polyamide
 polyimide manuf; film siloxane polyamide polyimide manuf
 IT Heat-resistant materials
 (films; solvent-soluble siloxane-containing polyamide-polyimides with high
 mol. weight and good film formability, their manufacture, and their
 varnishes)
 IT Films
 (heat-resistant; solvent-soluble siloxane-containing
 polyamide-polyimides with high mol. weight and good film formability,
 their manufacture, and their varnishes)
 IT 552-30-7DP, Trimellitic anhydride, reaction products with diamines,
 polymers with diisocyanates 822-06-0DP, Hexamethylene diisocyanate,
 polymers with diimide dicarboxylic acids 4098-71-9DP, Isophorone
 diisocyanate, polymers with diimide dicarboxylic acids 97917-34-5DP,
 X-22-161AS, reaction products with trimellitic anhydride, polymers
 with aromatic diimide dicarboxylic acids and diisocyanates
 125127-87-9DP, reaction products with trimellitic anhydride,
 polymers with siloxane diimide dicarboxylic acids and diisocyanates
 (solvent-soluble siloxane-containing polyamide-polyimides with high mol.

weight and good film formability, their manufacture, and their varnishes)

L45 ANSWER 16 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1998:806535 HCPLUS Full-text
 DOCUMENT NUMBER: 130:110766
 TITLE: Method for manufacture of hydrophilic polyamides bearing polyoxyalkylene pendants
 INVENTOR(S): Suzuki, Kenji; Nishizawa, Hiroshi; Hirayama, Takao; Hirakura, Hiroaki
 PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10330481	A	19981215	JP 1998-80058 <--	19980327
US 6060215	A	20000509	US 1998-49056 <--	19980327
CN 1201164	A	19981209	CN 1998-109690 <--	19980330
TW 593397	B	20040621	TW 1998-87104821 <--	19980331
PRIORITY APPLN. INFO.:			JP 1997-80417 <--	A 19970331
			JP 1997-214810 <--	A 19970808

ED Entered STN: 24 Dec 1998

AB The polyamides are obtained by reacting hydrophilic dicarboxylic acids bearing polyoxyalkylene groups with diisocyanate or diamine compds., reacting the resulting polyamide intermediates with epoxy resins and crosslinking the resulting adducts with polycarboxylic acid monoanhydrides. Hydrophilic polyamides modified with acrylic compds. are useful for manufacture of printed circuit boards with good alkaline developing property. Thus, heating Jeffamine D-2000 with trimellitic anhydride gave a hydrophilic dicarboxylic acid, 64.32 parts of which was mixed with adipic acid 4.88, sebacic acid 6.75, isophthalic acid 5.54, terephthalic acid 5.54, dimer acid 0.15, MDI 6.33, TDI 17.62 and γ -butyrolactone 120 parts, and the mixture heated to 200° under N over 1.5 h and at 200° for 3 h to give a polyamide intermediate. After cooling to 130°, the intermediate solution was combined with Epomik R 140P (bisphenol A diglycidyl ether polymer) 29.82 and DMF 40, heated at 130° for 1.5 h, cooled to 115°, mixed with methacrylic acid 5.83, antioxidant 0.58, and N,N-dimethylbenzylamine 1.97, held for 1.5 h, combined with tetrahydrophthalic anhydride 21.72 parts, half-esterified at the temperature for 2 h, cooled to 70°, mixed with 2-isocyanoethyl methacrylate 2.46 parts, and heated at the same temperature for 1.5 h to give a photocurable polyamide resin.

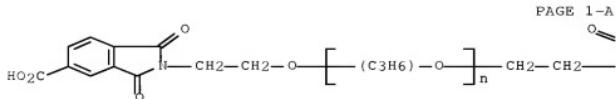
IT 95823-42-0DP, polyamides with dimer acids, other polycarboxylic acids and polyisocyanates, reaction products with epoxy resin and isocyanates and acrylic compds. 219596-00-6DP, polyamides with dimer acids, other polycarboxylic acids and polyisocyanates, reaction products with epoxy resin and isocyanates and acrylic compds.

(photocurable compns.; manufacture of hydrophilic polyamides bearing polyoxyalkylene pendants and their photocurable compns.)

RN 95823-42-0 HCPLUS

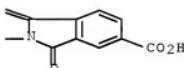
CN Poly[oxy(methyl-1,2-ethanediyl)], α -[2-(5-carboxy-1,3-dihydro-

1,3-dioxo-2H-isoindol-2-yl)methylethyl]- ω -(2-(5-carboxy-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)methylethoxy)- (CA INDEX NAME)



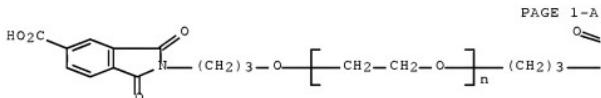
2 (D1-Me)

PAGE 1-B

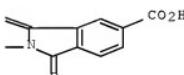


BN 219596-00-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-(5-carboxy-1,3-dihydro-1,3-dioxo-2H-isindol-2-yl)propyl]- ω -[3-(5-carboxy-1,3-dihydro-1,3-dioxo-2H-isindol-2-yl)propoxy] (9CI) (CA INDEX NAME)



PAGE 1-B



IC ICM C08G069-48
ICS G03F007-027; C08G018-48
CC 35-5 (Chemistry of Synthetic High Polymers)
IT Photocresists

Printed circuit boards
(manufacture of hydrophilic polyamides bearing polyoxyalkylene pendants
and their photocurable compns.)

IT 79-41-4DP, Methacrylic acid, reaction products with epoxy resin-branched polyamide adducts and crosslinkers 85-43-8DP, Tetrahydrophthalic anhydride, reaction products with epoxy resin-branched polyamide adducts, methacrylates 100-21-0DP, Terephthalic acid, polyamide with polyoxyalkylene-branched dicarboxylic acids, dimer acids, other polycarboxylic acids, polyamines or polyisocyanates, reaction products with epoxy resins and acrylic compds. 101-68-8DP, MDI, polyamide with polyoxyalkylene-branched dicarboxylic acids, dimer acids, other polycarboxylic acids, reaction products with epoxy resins and acrylic compds. 111-20-6DP, Sebacic acid, polyamide with polyoxyalkylene-branched dicarboxylic acids, dimer acids, other polycarboxylic acids, polyamines or polyisocyanates, reaction products with epoxy resins and acrylic compds. 121-91-5DP, Isophthalic acid, polyamide with polyoxyalkylene-branched dicarboxylic acids, dimer acids, other polycarboxylic acids, polyamines or polyisocyanates, reaction products with epoxy resins and acrylic compds. 124-04-9DP, Adipic acid, polyamide with polyoxyalkylene-branched dicarboxylic acids, dimer acids, other polycarboxylic acids, polyamines or polyisocyanates, reaction products with epoxy resins and acrylic compds. 25085-99-8DP, Epomik R 140P, reaction products with polyamides bearing polyoxyalkylene pendants and acrylic compds. 26471-62-5DP, TDI, polyamide with polyoxyalkylene-branched dicarboxylic acids, dimer acids, other polycarboxylic acids, reaction products with epoxy resins and acrylic compds. 30674-80-7DP, 2-Isocyanatoethyl methacrylate, reaction products with epoxy resin-branched polyamide adducts, acrylic compds. and acid anhydride 63611-00-7DP, polyamides with dimer acids, other polycarboxylic acids and polyisocyanates, reaction products with epoxy resin and isocyanates and acrylic compds. 64772-16-3DP, Epomik R 301, reaction products with polyamides bearing polyoxyalkylene pendants and acrylic compds. 65605-36-9DP, Ethylene oxide-propylene oxide copolymer bis(2-aminopropyl)ether, diimide with trimellitic anhydride, polyamides with dimer acids, other polycarboxylic acids and polyisocyanates, reaction products with epoxy resin and isocyanates and acrylic compds. 95823-42-0DP, polyamides with dimer acids, other polycarboxylic acids and polyisocyanates, reaction products with epoxy resin and isocyanates and acrylic compds. 110368-93-9DP, Epo Tohto YDF 2001, reaction products with polyamides bearing polyoxyalkylene pendants and acrylic compds. 219596-60-6DP, polyamides with dimer acids, other polycarboxylic acids and polyisocyanates, reaction products with epoxy resin and isocyanates and acrylic compds. 219621-14-4DP, polyamides with dimer acids, other polycarboxylic acids and polyisocyanates, reaction products with epoxy resin and isocyanates and acrylic compds. (photocurable compns.; manufacture of hydrophilic polyamides bearing polyoxyalkylene pendants and their photocurable compns.)

L45 ANSWER 17 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:659777 HCAPLUS Full-text

DOCUMENT NUMBER: 129:331131

TITLE: Preparation and properties of novel poly(urethane-imide)s

AUTHOR(S): Zuo, Min; Xiang, Qian; Takeichi, Tsutomu

CORPORATE SOURCE: School of Materials Science, Toyohashi University of Technology, Toyohashi, 441, Japan

SOURCE: Polymer (1998), 39(26), 6883-6889

CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 20 Oct 1998

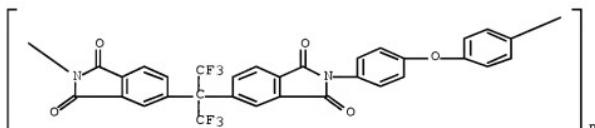
AB A series of poly(urethane-imide)s were prepared by a novel approach. Polyurethane (PU) prepolymer was prepared by the reaction of polyester polyol and 2,4-tolylene diisocyanate (2,4-TDI), and then end-capped with phenol. The PU prepolymer was blended with poly(amide acid) or oligo(amide acid) prepared from 2,2'-bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride (6FDA) and oxydianiline (ODA) at room temperature in various weight ratios. The blend films obtained by casting and then drying were not transparent, suggesting that phase separation occurred between the polyimide (PI) and PU components. The films became transparent, however, after thermal treatment at 100°C and then 200°C for 1 h each, irresp. of the ratio of the two components. The poly(urethane-imide) films showed good solvent-resistance. Dynamic mech. anal. of the films showed that glass transition temps. (Tg) shifted depending on the ratio of PI and PU components. This shift of Tg, along with the transparency of the films, suggests that the PU and PI components employed here are miscible to some extent and that domains of each phase by microphase separation are small. Tensile measurement of the blend films from poly(amide acid) showed that the films are plastic or elastic, depending on the ratio of the components. Thermal stability of the PU was found to increase by the incorporation of polyimide component.

IT 39940-16-4DP, 2,2'-Bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride-4,4'-oxydianiline copolymer, sru, reaction products with phthalic anhydride

(preparation and properties of novel poly(urethane-imide)s)

RN 39940-16-4 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)



CC 35-7 (Chemistry of Synthetic High Polymers)

IT 85-44-9DP, Phthalic anhydride, reaction products with polyimide oligomers 108-95-2DP, Phenol, reaction products with polyurethane, preparation 28132-94-7DP, Adipic acid-ethylene glycol-2,4-TDI copolymer, reaction products with phenol 32240-73-6DP, 2,2'-Bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride-4,4'-oxydianiline copolymer, reaction products with phthalic anhydride 39940-16-4DP, 2,2'-Bis(3,4-dicarboxyphenyl)hexafluoropropane dianhydride-4,4'-oxydianiline copolymer, sru, reaction products with phthalic anhydride

(preparation and properties of novel poly(urethane-imide)s)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 18 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:555887 HCAPLUS Full-text
DOCUMENT NUMBER: 129:223257

TITLE: Positive-working photosensitive resin composition and production of relief and polyimide patterns using same

INVENTOR(S): Hagiwara, Hideo

PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10228110	A	19980825	JP 1997-31526 <--	19970217
PRIORITY APPLN. INFO.:			JP 1997-31526 <--	19970217

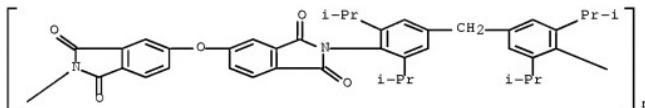
ED Entered STN: 01 Sep 1998

AB The title composition contains (a) a complex formed from an organic solvent-soluble polyimide and a basic compound, (b) a photoacid-generating agent, and (c) a solvent. A coating film of the composition is patternwise exposed with an active ray and developed to remove the exposed area to form a relief pattern, which is heat-treated to give a polyimide pattern. The composition shows stable viscosity and provides a high quality polyimide pattern with good profile and thermal resistance.

IT 212313-66-1DP, complexes with diethylamine
(photoresist composition containing polyimide-base complex and photoacid generator)

RN 212313-66-1 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl){2,6-bis(1-methylethyl)-1,4-phenylene)methylene[3,5-bis(1-methylethyl)-1,4-phenylene]] (9CI) (CA INDEX NAME)



IC ICM G03F007-039

ICS G03F007-004; G03F007-037; G03F007-40; H01L021-027; H01L021-312

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT Positive photoresists

(photoresist composition containing polyimide-base complex and photoacid generator)

IT 109-89-7DP, Diethylamine, complexes with polyimide 212313-63-8DP, complexes with diethylamine 212313-64-9DP, complexes with diethylamine 212313-65-0DP, complexes with diethylamine 212313-66-1DP, complexes with diethylamine

(photoresist composition containing polyimide-base complex and photoacid

generator)

L45 ANSWER 19 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1998:545696 HCPLUS Full-text
 DOCUMENT NUMBER: 129:223254
 TITLE: Hydroxystyrene-based chemically amplified
 positive-working photoresist composition
 containing acid generator
 INVENTOR(S): Tan, Shiro; Aogo, Toshiaki; Fujinomori, Susumu
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

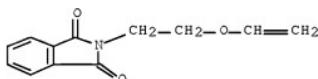
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10221854	A	19980821	JP 1997-25369 <--	19970207
JP 3802179	B2	20060726		
US 6004721	A	19991221	US 1998-18883 <--	19980205
PRIORITY APPLN. INFO.:			JP 1997-25369 <--	A 19970207

ED Entered STN: 27 Aug 1998

AB The composition contains (a) a phenolic OH-containing alkali-soluble resin of which 10-80% of the OH groups are substituted by a group OCHR1O(CH₂)_nW (R1 = C1-4 alkyl; W = organic group containing ≥1 O, N, S, P, and Si, amino, ammonium, mercapto; n = 1-4), (b) a compound generating acid upon active ray or radiation irradiation, and (c) a solvent. The composition provides high resolution resist patterns with good profile and adhesion to substrate.IT 67643-67-8DP, reaction products with polyhydroxystyrene
 (hydroxystyrene-based chemical amplified pos.-working photoresist
 containing acid generator)

RN 67643-67-8 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[2-(ethenyoxy)ethyl]- (CA INDEX NAME)



IC ICM G03F007-039

ICS G03F007-039; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

IT Positive photoresists

(hydroxystyrene-based chemical amplified pos.-working photoresist
 containing acid generator)IT 6026-79-5DP, 2-Acetoxyethyl vinyl ether, reaction product with
 poly(p-hydroxystyrene) 24979-70-2DP, Poly(p-hydroxystyrene),

reaction product with 2-acetoxyethyl vinyl ether 24979-71-3DP,
 p-Hydroxystyrene-methyl methacrylate copolymer, reaction product with
 2-acetoxyethyl vinyl ether 24979-74-6DP, p-Hydroxystyrene-styrene
 copolymer, reaction product with 2-acetoxyethyl vinyl ether
 41440-39-5DP, reaction products with polyhydroxystyrene
 67643-67-8DP, reaction products with polyhydroxystyrene
 71172-76-4DP, reaction products with polyhydroxystyrene
 171429-59-7DP, p-Acetoxystyrene-p-hydroxystyrene copolymer, reaction
 product with 2-acetoxyethyl vinyl ether
 (hydroxystyrene-based chemical amplified pos.-working photoresist
 containing acid generator)

L45 ANSWER 20 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:479926 HCPLUS [Full-text](#)

DOCUMENT NUMBER: 129:190041

TITLE: (Hydroxyphenyl)hydroxyphthalimides, their epoxy derivatives, and thermosetting resin compositions with good heat resistance and electric properties

INVENTOR(S): Hasegawa, Yoshikazu; Kajiwara, Yoshitaka; Oshimi, Katsuhiko; Kogo, Makiko

PATENT ASSIGNEE(S): Nippon Kayaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

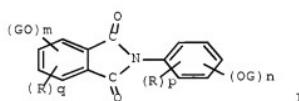
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10195050	A	19980728	JP 1997-11944 <--	19970107
PRIORITY APPLN. INFO.:			JP 1997-11944 <--	19970107

OTHER SOURCE(S): MARPAT 129:190041

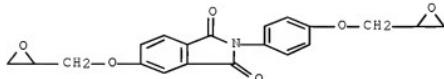
ED Entered STN: 03 Aug 1998

GI



AB Resin compns. for electronic part sealing or laminated sheets contain (A) N-(hydroxyphenyl)hydroxyphthalimides I ($R = \text{alkyl, alkenyl, aralkyl, aryl, halo, alkoxy}$; $G = H$; $m, n = 1-2$; $p, q = 0-3$), epoxy resins, and inorg. fillers or (B) I ($G = 2,3\text{-epoxypropyl}$) or their reaction products with I ($G = H$), hardeners, and inorg. fillers. Epoxy resins are manufactured by reacting I ($G = H$) with epihalohydrins and alkalies. Thus, imidation of 4-hydroxypthalic acid with 4-aminophenol gave I [$R = H$, $(OG)m = (OG)n = 4\text{-OH}$], which was reacted with epichlorohydrin and Me3N-HCl in dioxane at $70-80^\circ$ for 6 h to give

- I [R = H, (OG)_m = (OG)_n = 4-(2,3-epoxypropyl)] (II). A cured product from II, phenol novolak, and PPh₃ showed Tg 175°.
- IT 211694-85-8DP, polymers with phenol novolaks
(preparation of phthalimide-containing epoxy resins for heat-resistant electronic part sealing compns. or laminated sheets)
- RN 211694-85-8 HCAPLUS
- CN 1H-Isoindole-1,3(2H)-dione, 5-(oxiranylmethoxy)-2-[4-(oxiranylmethoxy)phenyl]- (9CI) (CA INDEX NAME)



- IC ICM C07D209-48
ICS C07D405-12; C08G059-26; C08G059-32; C08L063-00
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 27, 38, 76
- IT Phenolic resins, preparation
(novolak, reaction products with phthalimide-containing epoxy compound; preparation of phthalimide-containing epoxy resins for heat-resistant electronic part sealing compns. or laminated sheets)
- IT Epoxy resins, preparation
(reaction products with novolaks; preparation of phthalimide-containing epoxy resins for heat-resistant electronic part sealing compns. or laminated sheets)
- IT 211694-85-8DP, polymers with phenol novolaks
(preparation of phthalimide-containing epoxy resins for heat-resistant electronic part sealing compns. or laminated sheets)

L45 ANSWER 21 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:457363 HCAPLUS Full-text
DOCUMENT NUMBER: 129:142609
TITLE: Positive-working photosensitive resin composition,
pattern formation, and manufacture of large-scale
integrated circuit using same
INVENTOR(S): Mitsuwa, Takao; Okabe, Yoshiaki; Maegawa,
Yasunari; Langlade, Geradine Rames; Ueno, Isao
PATENT ASSIGNEE(S): Hitachi, Ltd., Japan; Hitachi Chemical Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10186658	A	19980714	JP 1996-343595	19961224
PRIORITY APPLN. INFO.:			JP 1996-343595	19961224

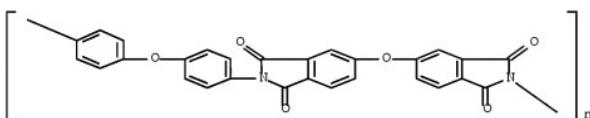
ED Entered STN: 23 Jul 1998

AB The title composition comprises a resin having a repeating unit R3NHCOA(CO2R1)(CO2R2)CONH (A = tetravalent organic group constituting C \geq 4 tetracarboxylic acids or their derivs.; R1, R2 = H or C \leq 20 aliphatic carboxylic acid, 21 of R1 and R2 is not H; R3 = divalent organic group constituting diamine), a diazoquinone compound 1-100, and a cresol novolak resin 1-30 parts per 100 parts of the resin component. The composition is coated on a substrate, irradiated the coating with an electromagnetic wave through a light-shielding mask, and developed to form a pattern. A method of manufacturing a large-scale integrated circuit involving the above procedure is also claimed. The composition shows high developability and thermal resistance and provides high resolution relief patterns with high mech. strength.

IT 25735-00-6DP, ester with iodopropionic acid
 32197-39-0DP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-p-phenylene diamine copolymer, sru, ester with iodopropionic acid
 (photoresist composition containing polyamic acid ester, diazoquinone compound, and cresol novolak resin)

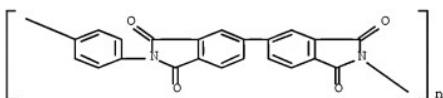
RN 25735-00-6 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)



RN 32197-39-0 HCAPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,4-phenylene] (CA INDEX NAME)



IC ICM G03F007-037

ICS G03F007-022; G03F007-023; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

ST polyamic acid ester photoresist; diazoquinone compd photoresist; cresol novolak resin photoresist

IT Phenolic resins, uses

(novolak, cresol-based; photoresist composition containing polyamic acid ester, diazoquinone compound, and cresol novolak resin)

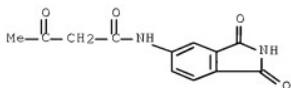
- IT Integrated circuits
 Positive photoresists
 (photoresist composition containing polyamic acid ester, diazoquinone compound, and cresol novolak resin)
- IT Polyamic acids
 (photoresist composition containing polyamic acid ester, diazoquinone compound, and cresol novolak resin)
- IT 25135-00-6DP, ester with iodopropionic acid 25736-02-1DP,
 ester with iodopropionic acid 26834-34-4DP, Iodopropionic acid,
 reaction products with diazoquinone and cresol novolak resin
 29319-22-ODP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-p-phenylene diamine copolymer, ester with iodopropionic acid 32197-39-0DP, 3,3',4,4'-Biphenyltetracarboxylic acid dianhydride-p-phenylene diamine copolymer, sru, ester with iodopropionic acid
 (photoresist composition containing polyamic acid ester, diazoquinone compound, and cresol novolak resin)
- IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 105935-62-4
 125677-72-7, 4,4'-Bis(1,2-naphthoquinone-2-diazido-5-sulfonylamo) diphenyl ether 125677-75-0
 (photoresist composition containing polyamic acid ester, diazoquinone compound, and cresol novolak resin)

L45 ANSWER 22 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1998:289696 HCAPLUS Full-text
 DOCUMENT NUMBER: 129:29220
 TITLE: Disazo pigment compositions with good dispersibility, fluidity, and moisture resistance for lithographic inks and their manufacture
 INVENTOR(S): Konuma, Takeshi; Takami, Hisanori
 PATENT ASSIGNEE(S): Dainippon Color and Chemicals Manufacturing Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10120930	A	19980512	JP 1996-297917 -->	19961023
JP 3226805	B2	20011105	JP 1996-297917 -->	19961023

PRIORITY APPLN. INFO.: ED Entered STN: 18 May 1998
 AB Title compns. are prepared by coupling tetrazolium salts of 3,3'-dichlorobenzidine (I)-based compds. with acetoacetoxylidide to form disazo pigment particles and then coating the particles with Ca or Al salts of rosin (abietic acid). Thus, 50.6 parts I was tetrazotized, coupled with 85.2 parts acetoacetomethoxylidide and 1.9 parts acetoaceto-2-carboxyanilide to form a pigment suspension, which was mixed with an aqueous solution containing dehydroabietic acid, CaCl₂ and AlCl₃, and dried to give a pigment compn showing good pigment dispersibility, fluidity, and moisture resistance.
 IT 64693-83-5DP, coupling with tetrazotized benzidine and acetoacetoxylidides
 (disazo pigment compns. with good dispersibility, fluidity, and moisture resistance for lithog. inks)

RN 68093-84-5 HCPLUS

CN Butanamide, N-(2,3-dihydro-1,3-dioxo-1H-isoindol-5-yl)-3-oxo- (CA
INDEX NAME)

IC ICM C09B067-08

ICS C09B063-00; C09B067-20; C09D011-02

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 41

ST disazo pigment lithog ink dispersibility; fluidity disazo pigment lithog ink; moisture resistance disazo pigment lithog ink; tetrazotized dichlorobenzidine acetoacetoxylidide coupling disazo pigment; calcium abietate coated disazo pigment ink; aluminum abietate coated disazo pigment ink

IT Coupling agents
(disazo pigment compns. with good dispersibility, fluidity, and moisture resistance for lithog. inks)IT Inks
(lithog.; disazo pigment compns. with good dispersibility, fluidity, and moisture resistance for lithog. inks)IT Resin acids
(salts, pigment coated with; disazo pigment compns. with good dispersibility, fluidity, and moisture resistance for lithog. inks)IT Pigments, nonbiological
(yellow; disazo pigment compns. with good dispersibility, fluidity, and moisture resistance for lithog. inks)IT 92-15-9 4433-79-8, Acetoaceto-2,5-dimethoxy-4-chloroanilide
5102-83-0, Pigment yellow 13 6199-95-7 35354-86-0 68093-84-5
68610-86-6, Pigment yellow 127

(coupler; disazo pigment compns. with good dispersibility, fluidity, and moisture resistance for lithog. inks)

IT 91-94-1DP, 3,3'-Dichlorobenzidine, tetrazotized, coupled with acetoacetoxylidides 92-15-9DP, coupling with tetrazotized benzidine and acetoacetoxylidides 119-90-4DP, 3,3'-Dimethoxybenzidine, tetrazotized, coupled with acetoacetoxylidides 4433-79-8DP, Acetoaceto-2,5-dimethoxy-4-chloroanilide, coupling with tetrazotized benzidine and acetoacetoxylidides 5102-83-0DP, Pigment yellow 13, coupling with tetrazotized benzidine and acetoacetanilide derivs. 6199-95-7DP, coupling with tetrazotized benzidine and acetoacetoxylidides 35354-86-0DP, coupling with tetrazotized benzidine and acetoacetoxylidides 68093-84-5DP, coupling with tetrazotized benzidine and acetoacetoxylidides

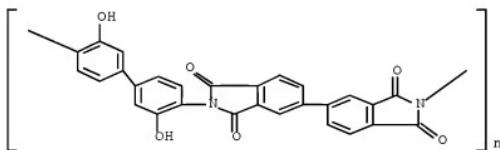
(disazo pigment compns. with good dispersibility, fluidity, and moisture resistance for lithog. inks)

IT 91-94-1, 3,3'-Dichlorobenzidine 119-90-4, 3,3'-Dimethoxybenzidine (disazo pigment compns. with good dispersibility, fluidity, and moisture resistance for lithog. inks)

IT 66604-45-3, Calcium dehydroabietate 207915-83-1
(pigment coated with; disazo pigment compns. with good

dispersibility, fluidity, and moisture resistance for
lithog. inks)

L45 ANSWER 23 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1998:224300 HCAPLUS Full-text
 DOCUMENT NUMBER: 128:230812 
 TITLE: Thermal conversion of hydroxy-containing
 polyimides to polybenzoxazoles
 AUTHOR(S): Tullos, Gordon L.; Powers, Jason M.; Jeskey, Stacy
 J.; Mathias, Lon J.
 CORPORATE SOURCE: Department of Polymer Science, The University of
 Southern Mississippi, Hattiesburg, MS, 39406-0076,
 USA
 SOURCE: Polymer Preprints (American Chemical Society,
 Division of Polymer Chemistry) (1998),
 39(1), 244-245
 CODEN: ACPAY; ISSN: 0032-3934
 PUBLISHER: American Chemical Society, Division of Polymer
 Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 22 Apr 1998
 AB Aromatic imides containing a pendent hydroxyl group ortho to the heterocyclic
 imide nitrogen were found to rearrange to benzoxazoles, with loss of carbon
 dioxide, upon heating above 350°C in an inert atmospheric Hydroxy-containing
 polyimide films based on 3,3',4,4'- biphenyltetracarboxylic dianhydride (BPDA)
 and 3,3'-dihydroxy-4,4'- diaminobiphenyl (HAB) were converted to fully-
 aromatic polybenzoxazoles by heating at 500°C for 1 h under nitrogen. The
 resulting polybenzoxazole films were found to be amorphous by small angle X-
 ray scattering. The films also displayed excellent solvent resistance and
 good thermal stability by dynamic thermogravimetric anal. with 5% weight loss
 in nitrogen occurring at 625°C.
 IT 144096-53-7DP, thermally cyclized
 (thermal conversion of hydroxy-containing polyimides to
 polybenzoxazoles)
 RN 144096-53-7 HCAPLUS
 CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-
 2,2'-diyl)(3,3'-dihydroxy[1,1'-biphenyl]-4,4'-diyl)] (CA INDEX NAME)



CC 35-8 (Chemistry of Synthetic High Polymers)

IT 144096-53-7DP, thermally cyclized 144279-09-4DP, thermally
 cyclized

(thermal conversion of hydroxy-containing polyimides to
 polybenzoxazoles)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

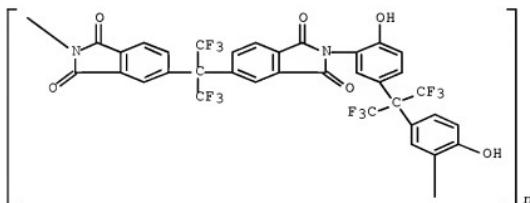
L45 ANSWER 24 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1998:53384 HCPLUS Full-text
 DOCUMENT NUMBER: 128:134277
 TITLE: Synthesis, characterization, and properties of a novel positive photoresist polyimide
 AUTHOR(S): Ho, Bang-Chen; Chen, Jian-Hong; Perng, Wen-Chung;
 Lin, Chin-Lung; Chen, Li-Mei
 CORPORATE SOURCE: Union Chemical Laboratories, Industrial Technology Research Institute, Hsinchu, 300, Taiwan
 SOURCE: Journal of Applied Polymer Science (1998), 67(7), 1313-1318
 CODEN: JAPNAB; ISSN: 0021-8995
 PUBLISHER: John Wiley & Sons, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 30 Jan 1998

AB An aqueous base-soluble polyimide (BAPAF/6FDA) was obtained from the polycondensation of 2,2-bis(3-amino-4-hydroxyphenyl)hexafluoropropane (BAPAF) and 4,4'-hexafluoroisopropylidene-bis (phthalic anhydride) (6FDA). It exhibits high thermal stability and high transparency at 365 nm. A novel pos. photoresist was prepared by protecting BAPAF/6FDA with a trimethylsilyl group while using diazonaphthoquinone as the photosensitizer. The silylated polyimide was converted to aqueous base-soluble polyimide in the presence of an acid and a slight amount of H₂O. This photoresist yields a sensitivity of 110 mJ/cm² and a contrast of 3.24.

IT 121334-09-6DF, reaction products with tri-Me silane
 (synthesis and properties of novel pos. photoresist polyimide with trimethylsilyl group)

RN 121334-09-6 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene){[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)}] (CA INDEX NAME)



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Absorption spectra

IR spectra

Lithography

Photoresists

Transparency

(synthesis and properties of novel pos. photoresist polyimide with trimethylsilyl group)

- IT 1066-40-6DP, Trimethylsilanol, reaction products with polyimides
 121333-85-5DP, reaction products with tri-Me silane
 121334-09-6DP, reaction products with tri-Me silane
 122983-64-6DP, reaction products with tri-Me silane
 (synthesis and properties of novel pos. photoresist polyimide with trimethylsilyl group)

L45 ANSWER 25 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:740056 HCAPLUS Full-text

DOCUMENT NUMBER: 128:41638

TITLE: Heat-sensitive composition and method of making lithographic plate using it

INVENTOR(S): Parsons, Gareth Rhodri; Riley, David Stephen;
 Hoare, Richard David; Monk, Alan Stanley Victor
 Horsell Graphic Industries Limited, UK; Parsons,
 Gareth Rhodri; Riley, David Stephen; Hoare,
 Richard David; Monk, Alan Stanley Victor

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9739894	A1	19971030	WO 1997-GB1117	19970422 ---
W: AU, BR, CA, CN, CZ, GB, IL, JP, KR, NO, NZ, PL, RU, US, VN RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
WO 9707986	A2	19970306	WO 1996-GB1973	19960813 ---
WO 9707986	A3	20010913		
W: AU, BR, CA, CN, GB, JP, MX, RU, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9723966	A	19971112	AU 1997-23966	19970422 ---
AU 707872	B2	19990722		
EP 825927	A1	19980304	EP 1997-919526	19970422 ---
EP 825927	B1	19990811		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
GB 2317457	A	19980325	GB 1997-25216	19970422 ---
GB 2317457	B	19990526		
JP 11506550	T	19990608	JP 1997-537850	19970422 ---
JP 3147908	B2	20010319		
BR 9702181	A	19991228	BR 1997-2181 ---	19970422
RU 2153986	C2	20000810	RU 1998-101117 ---	19970422
IL 122318	A	20010128	IL 1997-122318 ---	19970422

DE 29724584	U1	20020523	DE 1997-29724584	19970422
			<--	
US 6280899	B1	20010828	US 2000-483990	20000118
			<--	
PRIORITY APPLN. INFO.:			GB 1996-8394	A 19960423
			<--	
			GB 1996-14693	A 19960712
			<--	
			WO 1996-GB1973	A 19960813
			<--	
			GB 1997-884	A 19970117
			<--	
			GB 1995-16723	A 19950815
			<--	
			WO 1997-GB1117	W 19970422
			<--	
			US 1997-981620	B3 19971222
			<--	

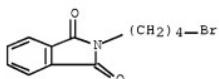
ED Entered STN: 24 Nov 1997

AB There is described coated on a lithog. plate base a complex of a developer-insol. phenolic resin and a compound which forms a thermally frangible complex with the phenolic resin. This complex is less soluble in the developer solution than the uncomplexed phenolic resin. However when this complex is imagewise heated the complex breaks down so allowing the uncomplexed phenolic resin to be dissolved in the developing solution. Thus the solubility differential between the heated areas of the phenolic resin and the unheated areas is increased when the phenolic resin is complexed. Preferably a laser radiation-absorbing material is also present on the lithog. base. A large number of compds. which form a thermally frangible complex with the phenolic resin are disclosed. Examples of such compds. are quinolinium compds., benzothiazolium compds., pyridinium compds. and imidazoline compds.

IT 5394-18-3D, N-(4-Bromobutyl)phthalimide, complexes with phenolic resins
 (lithog. plate manufacture using heat-sensitive recording materials containing thermally frangible)

RN 5394-18-3 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-(4-bromobutyl)- (CA INDEX NAME)



IC ICM B41C001-10
 ICS B41M005-36

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST thermal lithog. plate phenolic resin complex

IT Phenolic resins, uses
 (R 17620; lithog. plate manufacture using heat-sensitive recording materials containing thermally frangible)

IT Phenolic resins, uses
 (complexes; heat-sensitive recording materials for lithog. plate manufacture containing thermally frangible)

IT Lithographic plates

(heat-sensitive recording materials containing thermally frangible phenolic resin complexes for manufacture of)

- IT Recording materials
 (thermal; containing thermally frangible phenolic resin complexes for manufacture of lithog. plates)
- IT 9039-25-2, Bakelite LB 6564
 (Bakelite LB 6564; lithog. plate manufacture using heat-sensitive recording materials containing thermally frangible)
- IT 199444-11-6, KF 654B-PINA
 (KF 654B-PINA; lithog. plate manufacture using heat-sensitive recording materials containing thermally frangible)
- IT 9003-35-4, Phenol-formaldehyde polymer
 (R 17620; lithog. plate manufacture using heat-sensitive recording materials containing thermally frangible)
- IT 80-40-0D, Ethyl p-toluenesulfonate, complexes with phenolic resins 84-11-7D, Phenanthrenequinone, complexes with phenolic resins 90-47-1D, Xanthone, complexes with phenolic resins 98-59-9D, p-Toluenesulfonyl chloride, complexes with phenolic resins 119-61-9D, Benzophenone, complexes with phenolic resins 140-72-7D, Cetylpyridinium bromide, complexes with phenolic resins 487-26-3D, Flavanone, complexes with phenolic resins 494-38-2D, Acridine Orange Base, complexes with phenolic resins 525-82-6D, Flavone, complexes with phenolic resins 548-62-9D, Crystal violet, complexes with phenolic resins 604-59-1D, α -Naphthoflavone, complexes with phenolic resins 634-21-9D, complexes with phenolic resins 1745-32-0D, 3-Ethyl-2-[3-ethyl-2-(3H)benzothiazolylidene]-2-methyl-1-propenyl]benzothiazolium bromide, complexes with phenolic resins 1801-42-9D, complexes with phenolic resins 3119-93-5D, 3-Ethyl-2-methylbenzothiazolium iodide, complexes with phenolic resins 5394-18-3D, N-(4-Bromobutyl)phthalimide, complexes with phenolic resins 6051-87-2D, β -Naphthoflavone, complexes with phenolic resins 8044-71-1D, Cetrimide, complexes with phenolic resins 9004-39-1D, Cellulose acetate propionate, complexes 9011-13-6D, Maleic anhydride-styrene copolymer, ester derivs., complexes 18300-31-7D, 1-Ethyl-4-[5-(1-ethyl-4-(1H)quinolinylidene)-1,3-pentadienyl]quinolinium iodide, complexes with phenolic resins 24979-70-2D, Maruka Lyncur MS-2, complexes 50774-69-1D, complexes with phenolic resins 52229-50-2D, Gantrez An119, complexes 53320-66-4D, Monazoline C, complexes with phenolic resins 53721-12-3D, complexes with phenolic resins 134127-48-3 199487-83-7D, Ronacoat 300, complexes 199487-84-8D, SMA 2625P, complexes 199487-85-9D, SMD 995, complexes
 (lithog. plate manufacture using heat-sensitive recording materials containing thermally frangible)

L45 ANSWER 26 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:725266 HCPLUS Full-text

DOCUMENT NUMBER: 127:346952

TITLE: Preparation of resins containing phenol derivatives from chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer beads and antibacterial activity of resins

AUTHOR(S): Nonaka, Takamasa; Uemura, Yasuko; Ohse, Katsuto; Jyono, Kohki; Kurihara, Seiji

CORPORATE SOURCE: Department of Applied Chemistry and Biochemistry, Kumamoto University, Kumamoto, 860, Japan

SOURCE: Journal of Applied Polymer Science (1997), 66(8), 1621-1630
 CODEN: JAPNAB; ISSN: 0021-8995

PUBLISHER: Wiley
 DOCUMENT TYPE: Journal
 LANGUAGE: English

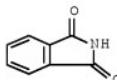
ED Entered STN: 17 Nov 1997

AB Copolymer beads (RCCS-4G) with many chloromethyl groups were prepared by treating macro-reticular chloromethylstyrene-tetraethyleneglycol dimethacrylate (4G) copolymer beads with chloromethylether. Copolymer beads (RAAS-4G) with benzylamino groups were prepared by treating RCCS-4G with potassium phthalimide. Then, copolymer beads containing phenol derivs. were prepared by treating RAAS-4G with p-hydroxybenzoic acid (p HBA), 2,4-dihydroxybenzoic acid (DHBA), and 3,4,5-trihydroxybenzoic acid (gallic acid, GA) in N,N-dimethylformamide, and the phenolic hydroxy group content was 2.3-7.7 mequiv/g. The antibacterial activity of the resins was examined against Escherichia coli and Staphylococcus aureus. The antibacterial activity of the resins containing various phenol derivs. against E. coli or S. aureus increased in the order of RAAS-4G-GA > RAAS-4G-DHBA > RAAS-4G-pHBA. The resins containing phenol derivs. exhibited higher antibacterial activity against E. coli than against S. aureus and high activity even against bacteria in NaCl solution. Scanning electron micrographs showed that high antibacterial activity was brought about by the phenolic hydroxyl groups in the resin.

IT 1074-82-4DP, Potassium phthalimide, reaction products with chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer, phenolic derivs.
 (preparation and antibacterial activity of phenolic chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer resins)

RN 1074-82-4 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, potassium salt (1:1) (CA INDEX NAME)



● K

CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 63

IT 89-86-1DP, 2,4-Dihydroxybenzoic acid, reaction products with phthalimide derivs. of chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer 99-96-7DP, p-Hydroxybenzoic acid, reaction products with phthalimide derivs. of chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer 149-91-7DP, 3,4,5-Trihydroxybenzoic acid, reaction products with phthalimide derivs. of chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer 542-88-1DP, Chloromethylether, reaction products with chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer, phenolic derivs. 1074-82-4DP, Potassium phthalimide, reaction products with chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer, phragic derivs. 166534-27-6DP, 4-Chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer,

chloromethylated, benzylamino and phenolic derivs.

(preparation and antibacterial activity of phenoic
chloromethylstyrene-tetraethyleneglycol dimethacrylate copolymer
resins)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L45 ANSWER 27 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:597036 HCPLUS Full-text

DOCUMENT NUMBER: 127:248495

TITLE: Negative-type soluble photosensitive polyimides
derived from benzhydroltetracarboxylic
dianhydride: synthesis and characterization

AUTHOR(S): Rames-Langlade, G.; Monjol, P.; Sekiguchi, H.;
Mercier, R.; Sillion, B.

CORPORATE SOURCE: Laboratoire de Chimie Macromoleculaire, URA 024,
Universite Pierre et Marie Curie, Paris, 75252,
Fr.

SOURCE: Polymer (1997), 38(19), 4965-4972
CODEN: POLMAG; ISSN: 0032-3861

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

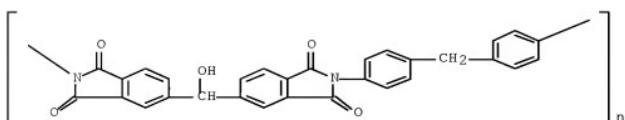
ED Entered STN: 18 Sep 1997

AB Neg.-type soluble photosensitive polyimides based on benzhydroltetracarboxylic dianhydride were synthesized and characterized. The polymers were prepared either by a thermal or chemical imidization, and the photoreactive methacryloyl group was introduced through the reaction between the hydroxyl group and the isocyanate group of methacryloyl isocyanate to yield a carbamate linkage. Bis(4-aminophenyl)methane, bis(3,5-dimethyl-4-aminophenyl)methane and bis(3-methyl-5-isopropyl-4-aminophenyl)methane were used as aromatic diamines, and 1,1,1,3,3,3-aquafluoropropane-2,2-di(4'-phthalic anhydride) as an aromatic dianhydride. An aromatic diamine, 4-N,N-dimethylamino-3'-5'-diaminobenzophenone, was also used in order to produce an autophotosensitive polymer. The resulting methacryloyl carbamate-modified polyimides were soluble in polar solvents and were characterized by IR and 1H and 13C NMR spectroscopies. Inherent viscosities, glass transition temps., thermal behavior and dielec. consts. were also determined

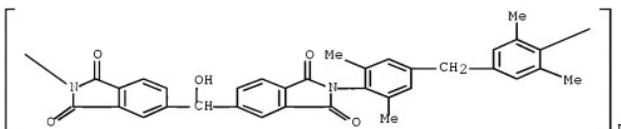
IT 86830-41-3DP, reaction products with methacryloyl isocyanate
135934-50-5DP, Benzhydroltetracarboxylic dianhydride-bis(3,5-dimethyl-4-aminophenyl)methane copolymer, SRU, reaction products with methacryloyl isocyanate
(synthesis and characterization of neg.-type soluble photosensitive polyimides derived from benzhydroltetracarboxylic dianhydride)

RN 86830-41-3 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diy)(hydroxymethylene)(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diy)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 195834-50-5 HCPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diy)(hydroxymethylene)(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diy)(2,6-dimethyl-1,4-phenylene)methylene(3,5-dimethyl-1,4-phenylene)] (9CI) (CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37, 74

IT Negative photoresists

(synthesis and characterization of neg.-type soluble photosensitive polyimides derived from benzhydroltetracarboxylic dianhydride for)

IT 4474-60-6DP, Methacryloyl isocyanate, reaction products with benzhydroltetracarboxylic dianhydride-based polyimides
 86830-41-3DP, reaction products with methacryloyl isocyanate
 146125-81-7DP, Benzhydroltetracarboxylic dianhydride-bis(4-aminophenyl)methane copolymer, reaction products with methacryloyl isocyanate 195834-47-0DP, reaction products with benzhydroltetracarboxylic dianhydride-based polyimides
 195834-48-1DP, reaction products with methacryloyl isocyanate
 195834-49-2DP, reaction products with methacryloyl isocyanate
 195834-50-5DP, Benzhydroltetracarboxylic dianhydride-bis(3,5-dimethyl-4-aminophenyl)methane copolymer, SRU, reaction products with methacryloyl isocyanate 195834-51-6P, Bis(4-aminophenyl)methane-bis(1,3-dihydro-1,3-dioxo-5-isobenzofuranyl)methyl (2-methyl-1-oxo-2-propenyl)carbamate copolymer 195834-52-7P, Bis(4-aminophenyl)methane-bis(1,3-dihydro-1,3-dioxo-5-isobenzofuranyl)methyl (2-methyl-1-oxo-2-propenyl)carbamate copolymer, SRU 195834-53-8P 195834-54-9P 195834-55-0P

(synthesis and characterization of neg.-type soluble photosensitive polyimides derived from benzhydroltetracarboxylic dianhydride)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L45 ANSWER 28 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:464867 HCPLUS [Full-text](#)

DOCUMENT NUMBER: 127:101762

TITLE: Photore sist composition with good resolution and reproducibility

INVENTOR(S): Gokochi, Toru; Okino, Takeshi; Asakawa, Koji; Nakase, Makoto; Shinoda, Naomi

PATENT ASSIGNEE(S): Toshiba Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09127691	A	19970516	JP 1996-221230 <--	19960822
JP 3433017	B2	20030804		
US 5837419	A	19981117	US 1996-705260 <--	19960829
KR 202763	B1	19990615	KR 1996-36657 <--	19960830
US 6045968	A	20000404	US 1998-98537 <--	19980617
PRIORITY APPLN. INFO.:			JP 1995-223812 <--	A 19950831
			JP 1996-221230 <--	A 19960822
			US 1996-705260 <--	A3 19960829

ED Entered STN: 25 Jul 1997

AB The title composition comprises a resin capable of being decomposed by an acid, acid generator, and a naphthol novolak compound of mol. weight \leq 2,000. The acid-decomposable resin is a copolymer of a compound having an aliphatic skeleton.

IT 191940-13-3DP, desilylated
(prepared for photoresist composition)

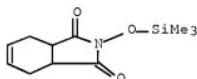
RN 191940-13-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 3a,4,7,7a-tetrahydro-2-[(trimethylsilyl)oxy]-1H-isoindole-1,3(2H)-dione (9CI) (CA INDEX NAME)

CM 1

CRN 191413-32-8

CMF C11 H17 N O3 Si



CM 2

CRN 585-07-9

CMF C8 H14 O2



IC ICM G03F007-023
 ICS C08L061-10; G03F007-004; G03F007-033; G03F007-038; G03F007-039;
 H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photoresist compn acid decomposable resin; naphthol novolak compd photoresist compn

IT Photoresists
 (composition comprising acid-decomposable resin, acid generator and naphthol novolak compound)

IT Phenolic resins, preparation
 (novolak, naphthol-based; prepared for photoresist composition)

IT Phenolic resins, preparation
 (novolak, reaction products; prepared as acid-decomposable compound for photoresist composition)

IT 24979-70-2DP, Poly(p-hydroxystyrene), reaction product with di-t-Bu carbonate 25086-15-1P, Methacrylic acid-methyl methacrylate copolymer 25359-91-5P, Formaldehyde- α -naphthol copolymer 34619-03-9DP, Di-tert-butyl carbonate, reaction product with poly(p-hydroxystyrene) 40114-03-2P, Butyral- α -naphthol copolymer 72145-62-1P, tert-Butyl methacrylate-methacrylic acid-methyl methacrylate copolymer 181017-30-1P, tert-Butyl methacrylate-methyl methacrylate-methacrylic acid copolymer 191413-28-2P 191940-12-2P, 2-Adamantyl methacrylate-tert-butyl methacrylate-methacrylic acid copolymer 191940-13-3DP, desilylated 191940-14-4DP, desilylated 191940-15-5P,
 Glyoxylaldehyde- α -naphthol copolymer
 (prepared for photoresist composition)

L45 ANSWER 29 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:73586 HCPLUS Full-text
 DOCUMENT NUMBER: 126:144843
 TITLE: Synthesis, thermal properties, and flame retardancy of phosphorus-containing polyimides
 AUTHOR(S): Liu, Ying-Ling; Hsieu, Ging-Ho; Lan, Chih-Wein;
 Kuo, Jen-Kwan; Jeng, Ru-Jong; Chiu, Yie-Shun
 CORPORATE SOURCE: Dep. Chem. Eng., Natl. Tsing Hua Univ., Hsinchu,
 Taiwan
 SOURCE: Journal of Applied Polymer Science (1997
), 63(7), 875-882
 CODEN: JAPNAB; ISSN: 0021-8995

PUBLISHER: Wiley
 DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 01 Feb 1997

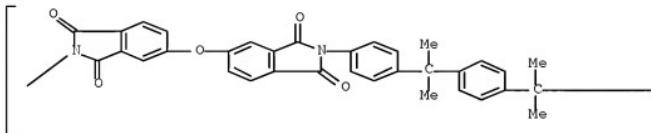
AB Phosphorus containing polyimides were prepared via phosphorylation of organosol. polyimides. This was achieved by phenoxaphosphine oxide ring formation reaction or esterification with di-Et chlorophosphate. The phosphorylation was confirmed by IR, 31P NMR, and elemental anal. for phosphorus. Polyimides containing phosphorus of 8.3 and 5.4% by weight were found. Thermal characteristics and decomposition behavior of the resulting polyimides were investigated by differential scanning calorimetry and thermogravimetric anal. Introduction of phosphorus into polyimides slightly reduced their initial weight loss temps. and led to high char yields at temps. higher than 800°. Limiting oxygen index values higher than 48 were found for the phosphorylated polyimides. Such properties make these polymers useful in flame retardant applications.

IT 127432-99-9DP, phosphorylated
(preparation, thermal properties, and flame retardancy of
phosphorus-containing polyimides)

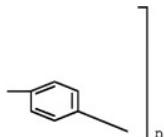
RN 127432-99-9 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenylene(1-methylethylidene)-1,4-phenylene(1-methylethylidene)-1,4-phenylene] (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 35, 36

IT Fire-resistant materials
(phosphorus-containing polyether-polyimides)

IT 127432-99-9DP, phosphorylated 127470-22-8DP, phosphorylated
186593-73-7DP, oxo derivs., polymers 186672-47-9P 186672-48-0P
(preparation, thermal properties, and flame retardancy of
phosphorus-containing polyimides)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L45 ANSWER 30 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:244793 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 124:318636

TITLE: Synthesis and characterization of self-metalizing
palladium-doped polyimide films

AUTHOR(S): Stoakley, Diane M.; St. Clair, Anne K.

CORPORATE SOURCE: NASA, Langley Research Center, Hampton, VA,
23681-0001, USA

SOURCE: Polymer Preprints (American Chemical Society,
Division of Polymer Chemistry) (1996),
37(1), 541-2

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English

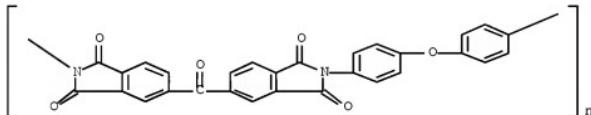
ED Entered STN: 25 Apr 1996

AB The effect of widely varying Pd concentration and of differing base resins on the formation of surface Pd layer and its correlation with the resistivity and reflectivity of the polyimide film was studied. Polyimide-fluoropolymers were used in the study. Thermal properties and surface elec. resistivity were studied.

IT 24991-11-5DP, complexes with palladium 79062-55-8DP,
 6FDA-1,3-bis(aminophenoxy)benzene copolymer, sru, complexes with palladium 86676-55-3DP, 6FDA-3,3'-diaminodiphenylsulfone copolymer, sru, complexes with palladium 97963-58-9DP,
 6FDA-3,3'-oxydianiline copolymer, sru, complexes with palladium (synthesis and characterization of self-metalizing palladium-doped polyimide films)

RN 24991-11-5 HCAPLUS

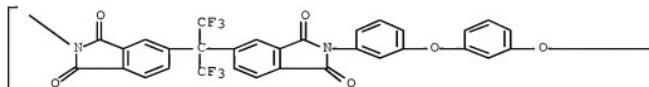
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)



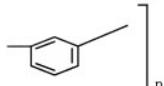
RN 79062-55-8 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenyleneoxy-1,3-phenylene] (CA INDEX NAME)

PAGE 1-A

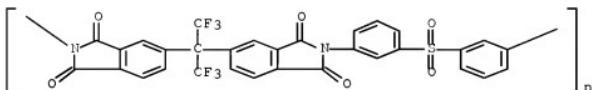


PAGE 1-B



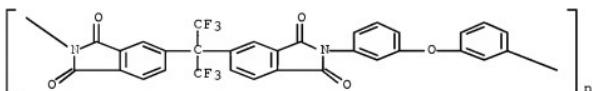
RN 86676-55-3 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}{(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylenesulfonyl-1,3-phenylene}] (CA INDEX NAME)



RN 97969-58-9 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}{(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneoxy-1,3-phenylene}] (CA INDEX NAME)



CC 37-5 (Plastics Manufacture and Processing)

Section cross-reference(s): 35

IT Electric resistance

(surface, synthesis and characterization of self-metalizing palladium-doped polyimide films)

IT 24980-39-0DP, complexes with palladium 24991-11-5DP,
complexes with palladium 79062-55-8DP, 6FDA-1,3-
bis(aminophenoxy)benzene copolymer, sru, complexes with palladium
79062-58-1DP, 6FDA-1,3-bis(aminophenoxy)benzene copolymer, complexes
with palladium 86676-45-1DP, 6FDA-3,3'-diaminodiphenylsulfone
copolymer, complexes with palladium 86676-55-3DP,
6FDA-3,3'-diaminodiphenylsulfone copolymer, sru, complexes with
palladium 97969-58-9DP, 6FDA-3,3'-oxydianiline copolymer,
sru, complexes with palladium 97969-62-5DP, 6FDA-3,3'-oxydianiline
copolymer, complexes with palladium
(synthesis and characterization of self-metalizing palladium-doped
polyimide films)

L45 ANSWER 31 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:772608 HCAPLUS Full-text

DOCUMENT NUMBER: 123:170670

TITLE: Preparation of polyimides having nonlinear optical
properties

INVENTOR(S): Jen, Kwan-Yue Alex; Drost, Kevin Joel

PATENT ASSIGNEE(S): Enichem S.p.A., Italy

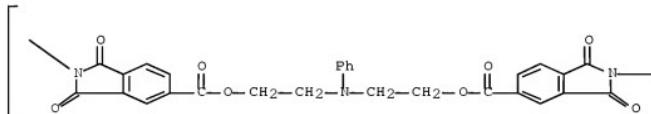
SOURCE: Eur. Pat. Appl., 23 pp.

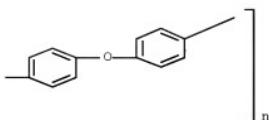
DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 5
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 647874	A1	19950412	EP 1994-202858	19941004 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE AU 9474410	A	19950427	AU 1994-74410	19941004 <--
AU 691513	B2	19980521		
SG 90693	A1	20020820	SG 1995-2215	19941004 <--
JP 07196795	A	19950801	JP 1994-266084	19941006 <--
KR 159122	B1	19990115	KR 1994-25493	19941006 <--
PRIORITY APPLN. INFO.:			US 1993-132707	A 19931006 <--

- ED Entered STN: 02 Sep 1995
 AB The title polyimides are prepared from monomers containing side groups with nonlinear optical properties. Reacting PhN(CH₂CH₂OH)₂ with 4-(chloroformyl)phthalic anhydride to give N,N-bis[2-(3,4-dicarboxybenzoyloxy)ethyl]aniline dianhydride, copolymerized with bis(4-aminophenyl) ether, and reacting the Ph side groups of the resulting polyimide with tetracyanoethylene gave a polyimide which contained 4-(tricyanovinyl)phenyl side groups and showed nonlinear optical properties.
 IT 155639-82-0DP, reaction products with tetracyanoethylene
 (preparation and nonlinear optical properties of)
 RN 155639-82-0 HCPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyloxy-1,2-ethanediyl(phenylimino)-1,2-ethanediylloxycarbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI)
 (CA INDEX NAME)

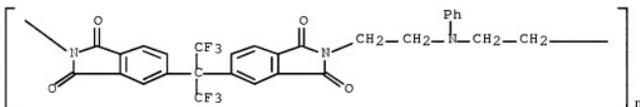
PAGE 1-A





RN 167268-03-3 HCAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-2,1-2-ethanediyl(phenylimino)-1,2-ethanediyl] (9CI) (CA INDEX NAME)



IC ICM G02F001-35

ICS C08G073-10

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37

IT Heat-resistant materials

(polyimides with nonlinear optical properties)

IT 670-54-2DP, Ethenetetracarbonitrile, reaction products with Ph group-containing polyimides 155639-81-9DP, reaction products with tetracyanoethylene 155639-82-0DP, reaction products with tetracyanoethylene 167268-02-2DP, reaction products with tetracyanoethylene 167268-03-3DP, reaction products with tetracyanoethylene

(preparation and nonlinear optical properties of)

L45 ANSWER 32 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:766444 HCAPLUS Full-text

DOCUMENT NUMBER: 123:325600

TITLE: Synthesis and photochemical properties of a BTDA-type photosensitive polyimide containing epoxy groups

AUTHOR(S): Yu, Han Sung; Yamashita, Takashi; Horie, Kazuyuki

CORPORATE SOURCE: Fac. Eng., Univ. Tokyo, Tokyo, 113, Japan

SOURCE: Journal of Photopolymer Science and Technology (1995), 8(2), 269-76

CODEN: JSTEEW; ISSN: 0914-9244

PUBLISHER: Technical Association of Photopolymers, Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 30 Aug 1995

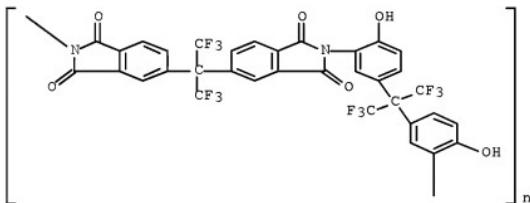
AB A new polyimide, PI(BTDA/ep-AHHFP) containing epoxy groups was synthesized by the reaction of epichlorohydrin with polyimide prepared from benzophenonetetracarboxylic anhydride and 2,2-bis(3-amino-4-hydroxyphenyl)hexafluoropropane [PI(BTDA/AHHFP)] in the presence of benzyl trimethylammonium chloride at 110–120°C. This polyimide having epoxy group is highly soluble in most common solvents. Photochem. reactivity of epoxy groups in PI(BTDA/ep-AHHFP) was examined by IR spectra in the presence of diphenyliodonium hexafluoroarsenate. The effects of the concentration of photoacid generator were also studied.

IT 121334-09-6 DDP, reaction product with epichlorohydrin

121334-11-0 DDP, reaction product with epichlorohydrin
(synthesis and photochem. and lithog. properties of photoresists based on BTDA-type polyimide containing epoxy groups)

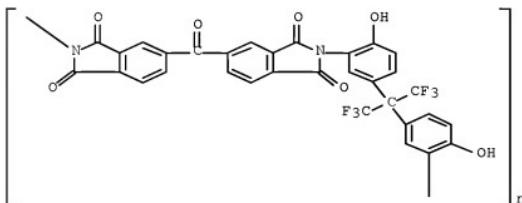
RN 121334-09-6 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)] (CA INDEX NAME)



RN 121334-11-0 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)] (CA INDEX NAME)

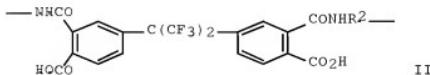
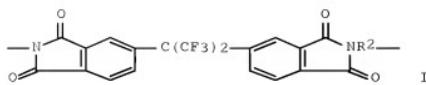


CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST photosensitive polyimide epoxy group lithog photoresist; benzophenonetetracarboxylic anhydride polyimide epichlorohydrin lithog photoresist; photochem benzophenonetetracarboxylic anhydride polyimide epichlorohydrin modified
 IT Polyimides, reactions
 (epoxy-polyketone, fluorine-containing; synthesis and photochem. and lithog. properties of photoresists based on BTDA-type polyimide containing epoxy groups)
 IT 62613-15-4, Diphenyliodonium hexafluoroarsenate
 (photoacid generator; lithog. characteristics of photoresist containing BTDA-type polyimide containing epoxy groups and photoacid generator)
 IT 56-93-9, Benzyltrimethylammonium chloride
 (reaction of epichlorohydrin with polyimides in preparation of lithog. photoresists)
 IT 121333-85-5 121333-87-7 121334-09-6 121334-11-0
 (reaction with epichlorohydrin in preparation of lithog. photoresists)
 IT 106-89-8, Epichlorohydrin, reactions
 (reaction with polyimides in preparation of lithog. photoresists)
 IT 121333-85-5DP, reaction product with epichlorohydrin 121333-87-7DP,
 reaction product with epichlorohydrin 121334-09-6DP,
 reaction product with epichlorohydrin
 (synthesis and photochem. and lithog. properties of photoresists based on BTDA-type polyimide containing epoxy groups)

L45 ANSWER 33 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:383091 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 122:226836
 TITLE: Photosensitive resin compositions providing high quality polyimide relief pattern
 INVENTOR(S): Kato, Koichi; Maeda, Suketoshi; Kunimune, Koichi
 PATENT ASSIGNEE(S): Chisso Corp, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

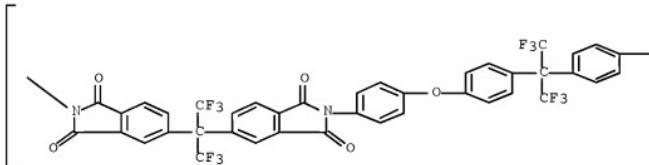
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
----- JP 06308728	----- A	----- 19941104	----- JP 1993-95934 <--	----- 19930422
PRIORITY APPLN. INFO.: JP 1993-95934 <--				19930422

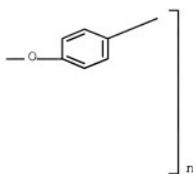
ED Entered STN: 02 Mar 1995
 GI



- AB The resin compns. contain 100 parts polyimide precursor from I and II and 0.5-50 parts o-quononediazide compound A photosensitive composition containing 20.0 g polyimide precursor prepared by treatment of 2,2-bis[4-(4-aminophenoxy)phenyl]hexafluoropropane-2,2-bis(3,4-dicarboxyphenyl)hexafluoropropane copolymer (polyamic acid) with DCC and 2.0 g 2,3,4-trihydroxybenzophenone tri(1,2-naphthoquinonediazido-5-sulfonate) showed good storage stability and gave a high-quality pos. polyimide relief pattern with high photosensitivity.
- IT 87186-94-5D, partially dehydrated
(pos.-working photoresists containing fluorinated polyimide precursors and quinonediazides)
- RN 87186-94-5 HCAPLUS
- CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)

PAGE 1-A





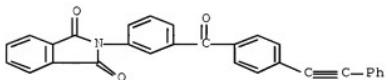
IC ICM G03F007-027
 ICS C08K005-23; C08L079-08; G03F007-004; G03F007-022; G03F007-039;
 H01L021-027; H01L021-312
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 IT Resists
 (photo-, pos.-working photoresists
 containing fluorinated polyimide precursors and quinonediazides)
 IT 5610-94-6 32240-73-6, 2,2'-Bis(3,4-dicarboxyphenyl)hexafluoropropane
 dianhydride-4,4'-diaminodiphenyl ether copolymer 39940-16-4
 64428-14-4D, partially dehydrated 86676-45-1 86676-55-3
 87182-96-5D, partially dehydrated 87183-01-5 87186-94-5D,
 partially dehydrated 87186-96-7 101359-51-7D, partially dehydrated
 101359-56-2D, partially dehydrated 137801-52-6D, partially
 dehydrated 161865-37-8 161865-38-9 162121-71-3D, partially
 dehydrated
 (pos.-working photoresists containing fluorinated polyimide precursors
 and quinonediazides)

L45 ANSWER 34 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1995:254476 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:57234
 TITLE: Phenylethynyl-terminated imide oligomers and
 polymers therefrom
 AUTHOR(S): Hergenrother, P. M.; Bryant, R. G.; Jensen, B. J.;
 Havens, S. J.
 CORPORATE SOURCE: NASA Langley Research Center, Hampton, VA,
 23681-0001, USA
 SOURCE: Journal of Polymer Science, Part A: Polymer
 Chemistry (1994), 32(16), 3061-7
 CODEN: JPACEC; ISSN: 0887-624X
 PUBLISHER: Wiley
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 20 Dec 1994
 AB Two new phenylethynyl endcapping compds., 3- and 4-amino-4'-
 phenylethynylbenzophenone, were synthesized and used to terminate imide
 oligomers from 3,4'-oxydianiline (I) and 4,4'-oxydiphthalic anhydride at a
 calculated mol. weight of 9000 and from I (0.85 mol), 1,3-bis(3-
 aminophenoxy)benzene (0.15 mol), and 3,3',4,4'- biphenyltetracarboxylic
 dianhydride at a calculated mol. weight of 5000 g/mol. Glass-transition
 temps. for the cured oligomers were .apprx. 249° for the former and .apprx.
 272° for the latter. Films cured at 350° for 1 h were tough and flexible and
 provided high tensile properties. The uncured oligomers were readily
 compression molded to provide tough, solvent-resistant moldings.

IT 160070-05-3DP, reaction products with polyimides
 (preparation and mech. and thermal properties of polyimides from
 phenylethyanyl-terminated imide oligomers)

RN 160070-05-3 HCAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[3-[4-(phenylethyanyl)benzoyl]phenyl]-
 (9CI) (CA INDEX NAME)



CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 35

IT 64427-92-5DP, 3,4'-Oxydianiline-4,4'-oxydiphthalic anhydride
 copolymer, sru, reaction products with 3-amino-4'-
 phenylethyanylbenzophenone 64427-92-5DP, 3,4'-Oxydianiline-4,4'-
 oxydiphthalic anhydride copolymer, sru, reaction products with
 4-amino-4'-phenylethyanylbenzophenone 105030-42-0DP, reaction
 products with 3- and 4-amino-4'-phenylethyanylbenzophenone
 105030-42-0P 160070-05-3DP, reaction products with
 polyimides 160070-07-5DP, reaction products with 3- and
 4-amino-4'-phenylethyanylbenzophenone 160070-07-5P
 (preparation and mech. and thermal properties of polyimides from
 phenylethyanyl-terminated imide oligomers)

L45 ANSWER 35 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:90539 HCAPLUS Full-text

DOCUMENT NUMBER: 120:90539

TITLE: Photoreactive fluorinated polyimide protected by tetrahydropyranyl (THP) group based on chemical amplification: acid generation in polyimide film and lithographic properties

AUTHOR(S): Naitoh, Kazuhiko; Ishii, Kazuhisa; Yamaoka,
 Tsuguo; Omote, Toshihiko

CORPORATE SOURCE: Fac. Eng., Chiba Univ., Chiba, 263, Japan
 SOURCE: Polymers for Advanced Technologies (1993

), 4(4), 294-301

CODEN: PADTE5; ISSN: 1042-7147

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 19 Feb 1994

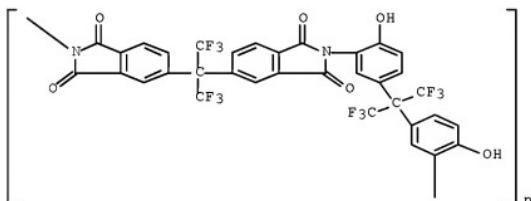
AB The photochem. of photoacid generator (PAG), diphenyliodonium 9,10-dimethoxyanthracene-2-sulfonate (DIAS) and diphenyliodonium 8-anilinonaphthalene-1-sulfonate (DIANS) was investigated in both alkaline-soluble polyimide (6FDA-AHHFP) prepared from (trifluoro(trifluoromethyl)ethylidene)bis(isobenzofurandione) and bis(aminohydroxyphenyl)hexafluoropropane, and in novolak films. The quantum yields of photodissocn. of DIAS and DIANS in both 6FDA-AHHFP and novolak films were 0.11, 0.21, 0.12 and 0.26, resp. The quantum yields for acid generation from DIAS and DIANS in both of these films were 0.07, 0.18, 0.09 and 0.22, resp. The values of the quantum yields of photodissocn. and photoacid formation for DIAS and DIANS in 6FDA-AHHFP film are lower than those in novolak films. Fluorescence quenchings of sodium 9,10-dimethoxyanthracene-2-sulfonate and ammonium 8-anilinonaphthalene-1-sulfonate by a model compound

of polyimide was carried out in acetonitrile. The fluorescences of these two salts were efficiently quenched by the model compound with the diffusion-controlled rate constant in acetonitrile, suggesting that a strong electron-accepting capability of the imide carbonyl group may hinder the electron transfer process within PAC mols. in 6FDA-AHHFP film. Although a polyimide (6F-THP) protected by tetrahydropyranyl group is insol. in aqueous base, 6F-THP film containing PAG became soluble in a 2:1 mixture of 2.0 weight% tetramethylammonium hydroxide (TMAH) and methanol by exposure to 365 nm light and successive post-exposure baking (PEB) at 120° for 10 min. The sensitivity and contrast 6F-THP with DIANS after the PEB conditions above were 110 mJ/cm² and 3.7, resp. A high-resolution pattern with a good profile was transferred into the 3 μm thickness of the 6F-THP film.

IT 121334-09-6D, reaction products with 3,4-dihydro-2H-pyran
(lithog. performance of photoresist system containing
anilinonaphthalenesulfonate and)

RN 121334-09-6 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)] (CA INDEX NAME)



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

ST lithog acid generation pyranyl protected polyimide;
photoactive fluorinated polyimide acid generation; photochem
photoacid generator novolak polyimide photoresist;
diphenyliodonium dimethoxyanthracenesulfonate
anilinonaphthalenesulfonate photolysis novolak polyimide

IT Photolysis

(of diphenyliodonium dimethoxyanthracenesulfonate and
diphenyliodonium anilinonaphthalenesulfonate in polyimide and
novolak films, photoresists in relation to)

IT Phenolic resins, reactions

(novolak, photolysis of iodonium salt photoacid
generators and)

IT 110-87-2D, reaction products with polymer 6FDA-AHHFP 121333-85-5D,
reaction products with 3,4-dihydro-2H-pyran 121334-09-6D,
reaction products with 3,4-dihydro-2H-pyran

(lithog. performance of photoresist system containing
anilinonaphthalenesulfonate and)

IT 137308-86-2, Diphenyliodonium 9,10-dimethoxyanthracene-2-sulfonate

146793-37-5, Diphenyliodonium 8-anilinonaphthalene-1-sulfonate
 (photochem. of photoacid generator of, in polyimide and
 novolak films)

L45 ANSWER 36 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1994:10048 HCPLUS Full-text
 DOCUMENT NUMBER: 120:10048
 TITLE: Poly(vinyl butyral) blend adhesive compositions
 for flexible printed circuit boards
 INVENTOR(S): Inoe, Hiroshi; Takabayashi, Seiichiro; Muramatsu,
 Tadao; Funakoshi, Tsutomu
 PATENT ASSIGNEE(S): Ube Industries, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05125345	A	19930521	JP 1991-350584 <--	19911108
PRIORITY APPLN. INFO.:			JP 1991-350584 <--	19911108

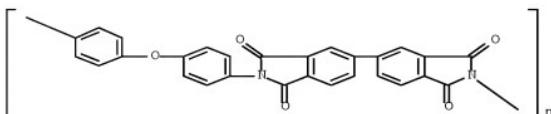
ED Entered STN: 08 Jan 1994

AB The title compns. with good flexibility and heat resistance contain (A) 100 parts poly(vinyl butyral) (I), (B) 30-150 parts alc.-soluble melamine resins, (C) 5-80 parts terminally modified imido siloxane oligomers having softening temperature $\leq 300^\circ$ and prepared by treating aromatic tetracarboxylic acid components mainly comprising 2,3,3',4'-bibiphenyltetracarboxylic acids, diamine components mainly comprising diamino polysiloxanes, and monoamines or unsatd. dicarboxylic acids or terminal-modified imide oligomers similarly prepared using aromatic diamines instead of the diamino polysiloxanes, (D) 50-150 parts epoxy-modified polysiloxanes, and (E) epoxy hardeners. Thus, 2,3,3',4'-bibiphenyltetracarboxylic dianhydride 0.03, H2N(CH2)3(SiMe2O)9SiMe2(CH2)3NH2 0.06, and maleic anhydride 0.07 mol were stirred to obtain maleic anhydride-terminated imido siloxane oligomer, 15 parts of which was blended with I (Denka 6000C) 30, Nikalac MS 001 20, KF 105 (epoxy-modified polysiloxane) 35, Phenol Novolak H-1 (phenol novolak hardener) 23, 2E4MZ (2-ethyl-4-methylimidazole) 0.01, and MeOH/MEK 200 parts to give an adhesive composition showing homogeneity for 1 wk at room temperature, which was applied to a polyimide film and bonded to a Cu foil to give a laminate showing adhesion strength 1.60 (25°) and 0.50 kg/cm (180°).

IT 26615-45-2D, reaction products with p-aminophenol
 (crosslinking agents, for epoxy resins, adhesives containing)

RN 26615-45-2 HCPLUS

CN Poly[(1,1',3,3'-tetrahydro-1,1',3,3'-tetraoxo[5,5'-bi-2H-isoindole]-2,2'-diyl)-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)



IC ICM C09J163-00
 ICS C08L063-00; C09J129-14; C09J161-30; C09J163-00; C09J179-08;
 C09J183-04

CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 76

IT Phenolic resins, uses
 (novolak, crosslinking agents, for epoxy resins,
 adhesives containing)

IT 123-30-8D, p-Aminophenol, reaction products with 3,3',4,4'-
 biphenoltetra carboxylic dianhydride-4,4'-biphenyl ether copolymer
 9003-35-4, H 1 (Phenolic resin) 26298-81-7D, reaction products with
 p-aminophenol 26515-45-2D, reaction products with
 p-aminophenol
 (crosslinking agents, for epoxy resins, adhesives containing)

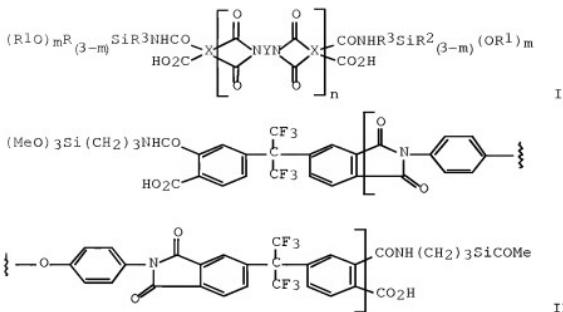
L45 ANSWER 37 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1993:604617 HCPLUS Full-text
 DOCUMENT NUMBER: 119:204617
 TITLE: Epoxy resin compositions and semiconductor devices
 using the same
 INVENTOR(S): Shiobara, Toshio; Tomiyoshi, Kazutoshi; Kato,
 Hideto
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1

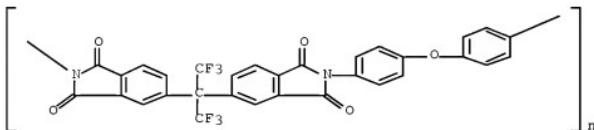
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04359921	A	19921214	JP 1991-163788 -->	19910607
JP 2500548	B2	19960529	JP 1991-163788 -->	19910607

PRIORITY APPLN. INFO.:
 ED Entered STN: 13 Nov 1993
 GI



- AB Epoxy resin compns. showing good adhesion to Si chips, lead frames, etc. and giving moisture-resistant cured products contain hardeners and imide compds. I [R₁, R₂ = (un)substituted Cl-10 hydrocarbyl; R₃, Y = divalent organic group; X = aromatic ring-containing tetravalent organic group; m = 1-3; n ≥ 1]. A composition comprised EOEN 4400H (o-cresol novolak epoxy resin) 56.7, BRENS 8, TD 2131 (phenolic novolak) 33.3, II 2, 20:80 molten blend of 1,8-diazabicyclo[5.4.0]undecene-7 and TD 2131 0.6, Ph3P 0.5, fused silica (sp. surface area 1.4 m²/g, average diameter 30 μ) 250, fused silica (sp. surface area 2.5 m²/g, average diameter 10 μ) 70, Sb203 8, carbon black 1.5, carnauba wax 1, and 3-glycidoxypyropyltrimethoxysilane 3 parts.
- IT 39940-16-4D, trimethoxysilyl group-terminated (epoxy potting compns. containing polyimides and, with good adhesion and moisture resistance, for semiconductor devices)
- RN 39940-16-4 HCAPLUS
- CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl){2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (CA INDEX NAME)



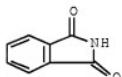
- IC ICM C08G059-40
ICS C08G059-40; H01L023-29; H01L023-31
- CC 37-6 (Plastics Manufacture and Processing)
- IT 32240-73-6D, trimethoxysilyl group-terminated 39940-16-4D, trimethoxysilyl group-terminated 93196-92-0, TD 2131 110634-63-4 (epoxy potting compns. containing polyimides and, with good adhesion and moisture resistance, for semiconductor devices)

L45 ANSWER 38 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1993:104149 HCAPLUS Full-text
 DOCUMENT NUMBER: 118:104149
 TITLE: Biphenyl-type epoxy resins in heat-resistant
 potting compositions
 INVENTOR(S): Ota, Masaru; Saeki, Yukio
 PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan; Sumitomo Durez
 Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04153213	A	19920526	JP 1990-275430 <--	19901016
JP 2938174	B2	19990823	JP 1990-275430 <--	19901016

PRIORITY APPLN. INFO.:

ED Entered STN: 19 Mar 1993
 AB The title compns., useful for highly integrated circuits, contain biphenyl-type epoxy resins, phenol novolak hardeners containing 30-100% maleimide-, phthalimide-, or 3,4-naphthalimide group-containing phenolic resin, maleimide derivs., hardening accelerators, and inorg. fillers. A cured potting composition containing 3,3',5,5'-tetramethylbiphenyl-4,4'-diol diglycidyl ether 90, brominated bisphenol A epoxy resin 10, phthalimido group-containing phenolic resin 90, fused silica 500, and additives 20 parts showed tensile strength and elastic modulus at 250° 2.5 and 60 kg/mm², resp., and good solder-heat and moisture resistance.
 IT 95-41-6D, 1H-Isoindole-1,3(2H)-dione, derivs.
 (hardeners, for biphenyl epoxy resins in potting compns.)
 RN 85-41-6 HCAPLUS
 CN 1H-Isoindole-1,3(2H)-dione (CA INDEX NAME)



IC ICM C08G059-24
 ICS C08G059-62; H01L023-29; H01L023-31
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 37, 76
 IT 85-41-6D, 1H-Isoindole-1,3(2H)-dione, derivs. 77818-02-1
 146052-80-4 146052-81-5
 (hardeners, for biphenyl epoxy resins in potting compns.)

L45 ANSWER 39 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1992:614635 HCAPLUS Full-text
 DOCUMENT NUMBER: 117:214635
 TITLE: Electric insulating varnishes based on phenolic

INVENTOR(S): Kriz, Jaroslav; Prikryl, Petr
 PATENT ASSIGNEE(S): Czech.
 SOURCE: Czech., 5 pp.
 CODEN: CZXXA9
 DOCUMENT TYPE: Patent
 LANGUAGE: Czech
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 265868	B1	19891114	CS 1987-9198 <--	19871214
PRIORITY APPLN. INFO.:			CS 1987-9198 <--	19871214

ED Entered STN: 28 Nov 1992

AB Flexible, elec.-insulating coatings resistant to temps. $\leq 165^\circ$ are manufactured from varnishes containing HCHO-phenol resin (I) or cresol-HCHO resin, Zn, Ti, or Sn compds., aromatic hydrocarbons, alkanols, and products with CO₂H concentration ≤ 0.36 mequiv./g prepared by reaction of 1 mol 6-(3-carboxyphthalimido)hexanoic acid or the crude 1:1 reaction product of trimellitic anhydride (II) and ϵ -caprolactam (III) or 6-aminohexanoic acid, ≤ 1 mol isophthalic acid, 0.6-0.8 mol C₁₆-20 unsatd. fatty acid, 0.16-0.18 mol 1,3,5-tris(2-hydroxyethyl)cyanuric acid (IV), and 1.1-1.3 mol C₂-5 aliphatic polyols. Thus, heating 26.3 g III 1 h at 180° with 44.6 g II, adding glycerol 20.4, ethylene glycol 3.1, IV 10.5, and sunflower-oil fatty acid 40 g, and heating to 230° at $0.5^\circ/\text{min}$ and 90 min at 230° gave a product (V) with CO₂H content 0.232 mequiv/g. V was dissolved in a solution containing xylene 68, BuOH 34, and 47% BuOH solution of I (mol. weight 440, CH₂OH group content 7.95 mequiv/g) 99.8 g to give a varnish that was baked 15 min at 200° on steel to give a coating with Erichsen value 10.2 mm, hardness F-H, and weight loss 28.2% after 20,000 h at 180° .

IT 144254-97-7DP, sunflower-oil fatty esters
 144254-99-9DP, soybean-oil fatty esters

(manufacture of, for flexible heat-resistant elec.-insulating coatings containing phenolic resins)

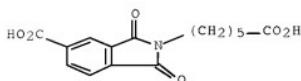
RN 144254-97-7 HCPLUS

CN 2H-Isoindole-2-hexanoic acid, 5-carboxy-1,3-dihydro-1,3-dioxo-, polymer with 1,2-ethanediol, 1,2,3-propanetriol and 1,3,5-tris(2-hydroxyethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI)
 (CA INDEX NAME)

CM 1

CRN 29378-16-3

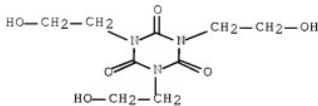
CMF C15 H15 N O6



CM 2

CRN 839-90-7

CMF C9 H15 N3 O6



CM 3

CRN 107-21-1

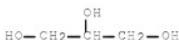
CMF C2 H6 O2



CM 4

CRN 56-81-5

CMF C3 H8 O3



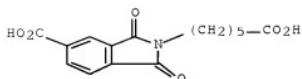
RN 144254-99-9 HCAPLUS

CN 2H-Isoindole-2-hexanoic acid, 5-carboxy-1,3-dihydro-1,3-dioxo-,
polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol,
2,2'-oxybis[ethanol], 1,2,3-propanetriol and 1,3,5-tris(2-
hydroxyethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX
NAME)

CM 1

CRN 29378-16-3

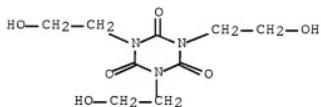
CMF C15 H15 N O6



CM 2

CRN 839-90-7

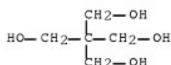
CMF C9 H15 N3 O6



CM 3

CRN 115-77-5

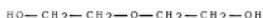
CMF C5 H12 O4



CM 4

CRN 111-46-6

CMF C4 H10 O3



CM 5

CRN 56-81-5

CMF C3 H8 O3

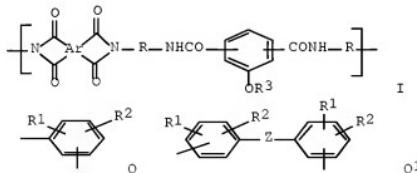


IC ICM C09D005-25
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 76
 IT 144254-97-7DP, sunflower-oil fatty esters
 144254-99-9DP, soybean-oil fatty esters 144255-01-6DP,
 sunflower-oil fatty esters
 (manufacture of, for flexible heat-resistant elec.-insulating coatings
 containing phenolic resins)

L45 ANSWER 40 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1992:175010 HCPLUS Full-text
 DOCUMENT NUMBER: 116:175010
 ORIGINAL REFERENCE NO.: 116:29649a,29652a
 TITLE: Positive-working photosensitive polyamideimides
 INVENTOR(S): Kiyohara, Tadashi; Hashimoto, Takeshi
 PATENT ASSIGNEE(S): Tomoegawa Paper Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03273029	A	19911204	JP 1990-72142 <--	19900323
JP 2614526	B2	19970528	JP 1990-72142 <--	19900323
PRIORITY APPLN. INFO.:				

ED Entered STN: 03 May 1992
 GI



AB Title polymers containing repeating unit I (Ar = tetravalent aromatic group; R = Cl-12 alkylene; R1, R2 = H, halo, lower alkyl, alkoxy, nitrile, NO₂, OH; Z = nil, O, S, CO, CH₂, SO, SO₂; R3 = naphthoquinonediazidosulfonic acid group), heat-resistant with high photosensitivity, are manufactured by polycondensing

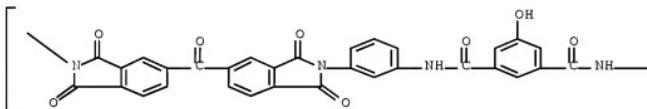
tetracarboxylic acid derivs. and diamines consisting of ≥50 mol% phenolic OH-containing diamines and treating the resulting aromatic polyamideimides with naphthoquinone diazide derivs. Thus, N,N'-bis(3-aminophenyl)-5-hydroxyisophthalamide-pyromellitic anhydride copolymer (polyamideimide) was treated with naphthoquinone-1,2-diazido-5-sulfonyl chloride in dimethylacetamide in the presence of Et3N at 40° to give title polymer with intrinsic viscosity 0.38 dL/g. The polymer was dissolved in N-methyl-2-pyrrolidone, applied to a glass substrate by spin coating, dried, exposed to UV through a test mask, and developed with monoethanolamine to give a relief pattern with good heat resistance.

IT 131820-25-2DP, reaction products with naphthoquinone-1,2-diazido-5-sulfonyl chloride 131820-39-8DP, reaction products with naphthoquinone-1,2-diazido-5-sulfonyl chloride (preparation of, photosensitive, for pos.-working photoresists, with good heat resistance)

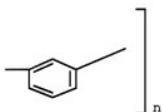
RN 131820-25-2 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenyleneiminocarbonyl(5-hydroxy-1,3-phenylene)carbonylimino-1,3-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A

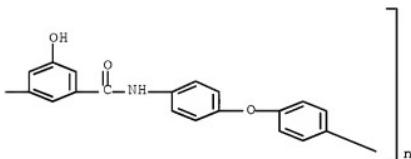
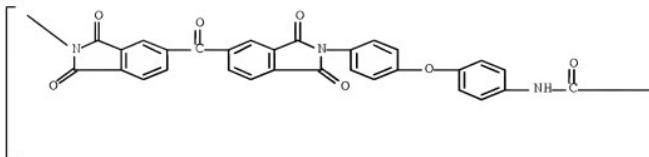


PAGE 1-B



RN 131820-39-8 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenyleneiminocarbonyl(5-hydroxy-1,3-phenylene)carbonylimino-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



- IC ICM C08G073-14
 ICS G03F007-023
 CC 35-7 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 74
 IT Resist
 (photo-, pos.-working,
 heat-resistant, polyamideimides containing
 naphthoquinonediazidosulfonyl group for)
 IT 131820-25-2DP, reaction products with naphthoquinone-1,2-diazido-5-sulfonyl chloride 131820-27-4DP, reaction products with naphthoquinone-1,2-diazido-5-sulfonyl chloride 131820-39-8DP,
 reaction products with naphthoquinone-1,2-diazido-5-sulfonyl chloride 131854-24-5DP, reaction products with naphthoquinone-1,2-diazido-5-sulfonyl chloride 131854-27-8DP, reaction products with naphthoquinone-1,2-diazido-5-sulfonyl chloride 131854-38-1DP,
 reaction products with naphthoquinone-1,2-diazido-5-sulfonyl chloride 140219-01-8DP, reaction products with naphthoquinone-1,2-diazido-5-sulfonyl chloride
 (preparation of, photosensitive, for pos.-working photoresists, with
 good heat resistance)

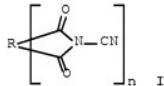
L45 ANSWER 41 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1992:106990 HCPLUS [Full-text](#)
 DOCUMENT NUMBER: 116:106990
 ORIGINAL REFERENCE NO.: 116:18143a,18146a
 TITLE: N-cyanoimides, process for their preparation, and
 use thereof
 INVENTOR(S): Stephens, Randall; Domier, Linda A.

PATENT ASSIGNEE(S): Henkel Research Corp., USA
 SOURCE: PCT Int. Appl., 91 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

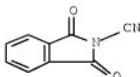
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9101307	A2	19910207	WO 1990-US4135	19900724 <--
WO 9101307	A3	19910404		
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
US 5216173	A	19930601	US 1990-558028	19900723 <--
EP 484381	A1	19920513	EP 1990-911077	19900724 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
PRIORITY APPLN. INFO.:			US 1989-385135	A 19890725 <--
			US 1990-558028	A 19900723 <--
			WO 1990-US4135	W 19900724 <--

OTHER SOURCE(S): MARPAT 116:106990

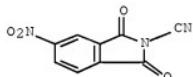
ED Entered STN: 20 Mar 1992
 GI



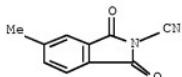
- AB The title imides I (R = polyvalent aliphatic, substituted aliphatic, aromatic, or substituted aromatic radical; n ≥ 2) are prepared by reaction of imides with cyanogen halides in the presence of bases. The title imides are useful as monomers (acting as anhydride equivs.) polymerizable with diamines at low temperature to polyimides with formation of cyanoamide as a non-volatile, solid reaction byproduct. The title imides are also useful as crosslinking agents for epoxy resins. To a cooled solution of phthalimide 1.47, cyanogen bromide 1.27 g, and 10.0 mL acetone was added dropwise over a 2 min period 1.8 mL Et3N and after 15 min the mixture was separated and partitioned between H2O and EtOAc; the organic phase giving the corresponding imide (m.p. 189-191°).
- IT 63571-77-7DP, polymers with MY 0510 and acrylic rubber
 63571-78-EDP, reaction products with epoxy resin
 135205-74-2DP, reaction products with epoxy resin
 (preparation of)
- RN 63571-77-7 HCAPLUS
- CN 2H-Isoindole-2-carbonitrile, 1,3-dihydro-1,3-dioxo- (CA INDEX NAME)



RN 63571-78-8 HCPLUS
 CN 2H-Isoindole-2-carbonitrile, 1,3-dihydro-5-nitro-1,3-dioxo- (CA INDEX NAME)



RN 135205-74-2 HCPLUS
 CN 2H-Isoindole-2-carbonitrile, 1,3-dihydro-5-methyl-1,3-dioxo- (CA INDEX NAME)



IC ICM C07D209-48
 ICS C07D487-02; C08G059-44
 CC 35-2 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 37
 IT Phenolic resins, uses
 (epoxy, novolak, crosslinking agents for, cyanoimides as)
 IT Epoxy resins, uses
 (phenolic, novolak, crosslinking agents for, cyanoimides
 as)
 IT 520-03-6P 1823-59-2P 5026-74-4DP, polymers with cyanophthalimide
 and acrylic rubber 25068-38-6DP, reaction product with
 cyanophthalimide 28768-32-3DP, polymers with acrylic rubber and
 cyanophthalimide 31305-88-1DP, reaction product with
 N-cyanophthalimide 31305-94-9DP, reaction product with
 N-cyanophthalimide 32240-73-6P 37348-52-0DP, DEN 431, reaction
 product with N-cyanophthalimide 39940-16-4P 53055-51-9P
 53196-96-6P 63571-71-7DP, polymers with MY 0510 and acrylic
 rubber 63571-77-7DP, reaction products with epoxy resin
 63571-78-8DP, reaction products with epoxy resin
 63957-64-2DP, DEN 438, reaction product with N-cyanophthalimide
 69572-56-1P 69577-60-2P 115500-91-9P 115501-01-4P 127433-01-6P
 127470-24-0P 135020-94-9P 135020-95-0P 135020-96-1P

135020-97-2P 135057-99-7P 135089-85-9P 135090-50-5P
 135124-94-6P 135124-95-7P 135125-06-3P 135125-07-4P
 135205-46-8P 135205-48-0P 135205-49-1P 135205-50-4P
 135205-51-5P 135205-52-6P 135205-53-7P 135205-54-8P
 135205-55-9P 135205-56-0P 135205-57-1P 135205-58-2P
 135205-59-3P 135205-60-6P 135205-61-7P 135205-62-8P
 135205-74-2DP, reaction products with epoxy resin 135205-76-4P
 135205-81-1P 135296-77-4P 139252-86-1P 139252-87-2P
 139252-88-3P 139252-89-4P 139252-90-7P 139290-03-2P
 (preparation of)

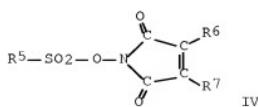
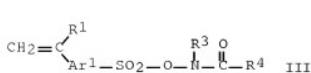
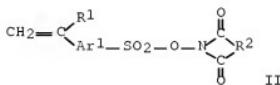
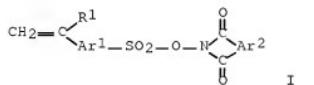
L45 ANSWER 42 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1992:31442 HCPLUS Full-text
 DOCUMENT NUMBER: 116:31442
 ORIGINAL REFERENCE NO.: 116:5229a, 5232a
 TITLE: Positive working photosensitive composition
 INVENTOR(S): Aoai, Toshiaki; Nagano, Teruo
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: U.S., 17 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5002853	A	19910326	US 1989-417496	19891005
			<--	
JP 02100054	A	19900412	JP 1988-253264	19881007
			<--	
JP 2547626	B2	19961023		
EP 363198	A3	19910828	EP 1989-310194	19891005
			<--	

R: DE, GB

PRIORITY APPLN. INFO.: JP 1988-253264 A 19881007
 <--

ED Entered STN: 24 Jan 1992
 GI



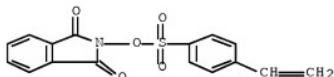
AB This composition comprises ≥ 1 mol% of a structural unit derived from ≥ 1 of monomers having the formula; I, II, III, and IV, wherein: R1 = H, an alkyl group, or a substituted alkyl group; R2 = a divalent alkylene group or a substituted divalent alkylene group; R3, R4 and R5 may be the same as or different from each other and each equal to an alkyl group, a substituted alkyl group, an aryl group, or a substituted aryl group; R6 and R7 may be the same as or different from each other and each equal to H, an alkyl group, a substituted alkyl group, an aryl group or a substituted aryl group; Ar1 = a single bond or Ar2, and Ar2 = a divalent arylene group or a substituted divalent arylene group.

IT 137961-76-3D, polymers 138046-02-3D, polymers
 138046-04-5D, polymers 138046-05-6D, polymers
 138046-06-7D, polymers 138046-07-8D, polymers
 138046-08-9D, polymers 138046-09-0D, polymers
 138046-10-3D, polymers 138046-11-4D, polymers
 138046-12-5D, polymers 138046-16-9D, polymers
 138046-19-2D, polymers 138046-20-5D, polymers
 141519-46-2D, polymers

(pos.-working photoresist containing)

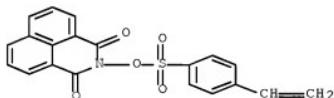
RN 137961-76-3 HCPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[(4-ethenylphenyl)sulfonyl]oxy- (9CI)
 (CA INDEX NAME)



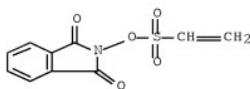
RN 138046-02-3 HCPLUS

CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(4-ethenylphenyl)sulfonyl]oxy- (9CI) (CA INDEX NAME)

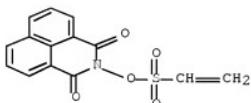


RN 138046-04-5 HCPLUS

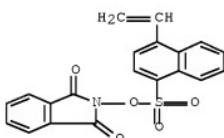
CN 1H-Isoindole-1,3(2H)-dione, 2-[(ethenylsulfonyl)oxy]- (9CI) (CA INDEX NAME)



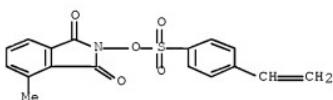
RN 138046-05-6 HCAPLUS
 CN 1H-Benz[de]isoquinoline-1,3(2H)-dione, 2-[(ethenylsulfonyl)oxy]- (9CI)
 (CA INDEX NAME)



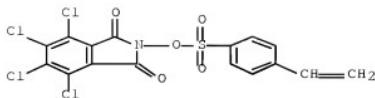
RN 138046-06-7 HCAPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-[(4-ethenyl-1-naphthalenyl)sulfonyloxy]- (9CI) (CA INDEX NAME)



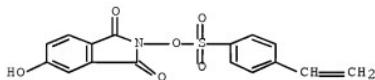
RN 138046-07-8 HCAPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-[(4-ethenylphenyl)sulfonyloxy]-4-methyl- (9CI) (CA INDEX NAME)



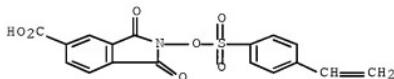
RN 138046-08-9 HCAPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 4,5,6,7-tetrachloro-2-[(4-ethenylphenyl)sulfonyloxy]- (9CI) (CA INDEX NAME)



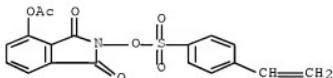
RN 138046-09-0 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-[(4-ethenylphenyl)sulfonyloxy]-5-hydroxy- (9CI) (CA INDEX NAME)



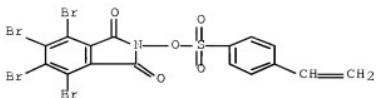
RN 138046-10-3 HCPLUS
 CN 1H-Isoindole-5-carboxylic acid, 2-[(4-ethenylphenyl)sulfonyloxy]-2,3-dihydro-1,3-dioxo- (CA INDEX NAME)



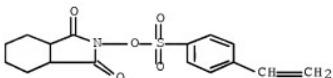
RN 138046-11-4 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 4-(acetyloxy)-2-[(4-ethenylphenyl)sulfonyloxy]- (9CI) (CA INDEX NAME)



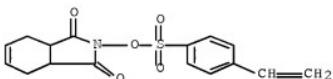
RN 138046-12-5 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 4,5,6,7-tetrabromo-2-[(4-ethenylphenyl)sulfonyloxy]- (9CI) (CA INDEX NAME)



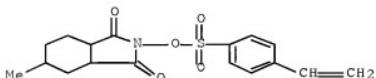
RN 138046-16-9 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-[[(4-ethenylphenyl)sulfonyl]oxy]hexahydr o- (9CI) (CA INDEX NAME)



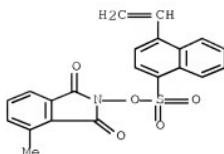
RN 138046-19-2 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-[[(4-ethenylphenyl)sulfonyl]oxy]-3a,4,7,7a-tetrahydro- (9CI) (CA INDEX NAME)



RN 138046-20-5 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-[[(4-ethenylphenyl)sulfonyl]oxy]hexahydr o-5-methyl- (9CI) (CA INDEX NAME)



RN 141519-46-2 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2-[[(4-ethenyl-1-naphthalenyl)sulfonyl]oxy]-4-methyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-039

ICS C08F012-32; C08F128-02

INCL 430281000

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 27, 38

IT Persists

(photo-, pos.-working, compns. containing sulfonate group-containing polymers as)

IT 31796-20-0D, polymers 137961-76-3D, polymers 137961-77-4
 137961-78-5D, polymers 137961-79-6 137961-80-9D, polymers
 137961-81-0 137961-83-2 138046-02-3D, polymers
 138046-03-4D, polymers 138046-04-5D, polymers
 138046-05-6D, polymers 138046-06-7D, polymers
 138046-07-8D, polymers 138046-08-9D, polymers
 138046-09-0D, polymers 138046-10-3D, polymers
 138046-11-4D, polymers 138046-12-5D, polymers
 138046-13-6D, polymers 138046-14-7D, polymers 138046-15-8D,
 polymers 138046-16-9D, polymers 138046-17-0D, polymers
 138046-18-1D, polymers 138046-19-2D, polymers
 138046-20-5D, polymers 138046-21-6D, polymers
 138046-22-7D, polymers 138046-23-8D, polymers 138046-24-9D,
 polymers 138046-25-0D, polymers 138046-26-1D, polymers
 138046-27-2D, polymers 138046-28-3D, polymers 138046-29-4D,
 polymers 138046-30-7D, polymers 138046-31-8D, polymers
 138046-32-9D, polymers 138046-33-0D, polymers 138046-34-1D,
 polymers 138046-35-2D, polymers 138046-36-3D, polymers
 138046-37-4D, polymers 138046-38-5D, polymers 138046-39-6D,
 polymers 138046-40-9D, polymers 138046-41-0D, polymers
 138073-73-1D, polymers 141519-46-2D, polymers
 (pos.-working photoresist containing)

L45 ANSWER 43 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:633872 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 115:233872

ORIGINAL REFERENCE NO.: 115:39873a,39876a

TITLE: Solder- and thermal-shock-resistant epoxy resin compositions for sealing semiconductors

INVENTOR(S): Yanagisawa, Kenichi; Ota, Masaru; Kosaka, Wataru

PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

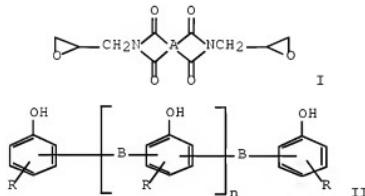
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

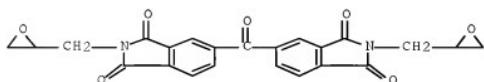
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03128919	A	19910531	JP 1989-158281 <--	19890622
JP 2703057	B2	19980126		
PRIORITY APPLN. INFO.:			JP 1989-158281 <--	19890622

ED Entered STN: 29 Nov 1991
GI



- AB Solder- and thermal-shock-resistant compns. for the title use comprise epoxides including 20-100% imide-containing epoxides I (A = tetravalent aromatic residue, R1-2 = H, Cl-5 alkyl), flexible polyphenol hardeners II [B = cyclohexylene, p-CH₂C₆H₄CH₂, tricyclo[5.2.1.0_{2,6}]decane diyl, norbornanediyl, cyclopentanediyl; R = H, halo, Cl-5 alkyl; n = 0-10], and inorg. fillers. Thus, I (A = 1,2,4,5-C₆H₂) 25, brominated phenol novolak epoxy resin 10, tris(hydroxyalkylphenyl)methane-based epoxy resin 65, II (R = H, B = p-CH₂C₆H₄CH₂, n = 0, 1, 2 mixture) 50, fused SiO₂ 450, Sb₂O₃ 25, a silane coupler 2, DBU 2, carbon black 3, and carnauba wax 3 parts were roll kneaded, cooled, pulverized, and transfer-molded with 20 model chips to give samples with crack formation 0/20 after 168 h under 85° and 85% relative humidity and 10 s in solder at 260° and 0/20 after 500 thermal cycles from -65° to 150°.
- IT 38165-39-8-EPD, polymers with polyepoxides and polyphenols
(manufacture of, as heat and thermal-shock-resistant potting compns.,
for semiconductors)
- RN 38165-39-8 HCAPLUS
- CN 1H-Isoindole-1,3(2H)-dione, 5,5'-carbonylbis[2-(oxiranylmethyl)- (9CI)
(CA INDEX NAME)]

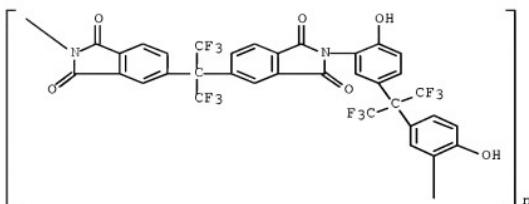


- IC ICM C08G059-22
ICS C08G059-10; C08G059-62; H01L023-29; H01L023-31

CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 76
 IT 23328-66-7DP, polymers with polyepoxides and polyphenols
 38165-39-8DP, polymers with polyepoxides and polyphenols
 61990-96-3DP, polymers with diimide-containing diepoxides and polyepoxides and polyphenols 67880-65-3DP, polymers with diimide-containing diepoxides and polyepoxides and polyphenols 80873-30-9DP, polymers with diimide-containing diepoxides and polyepoxides and polyphenols 135745-50-5DP, polymers with polyepoxides and polyphenols 135975-24-5DP, polymers with polyepoxides and polyphenols 137010-49-2DP, polymers with diimide-containing diepoxides and polyepoxides and polyphenols 137010-51-6DP, polymers with diimide-containing diepoxides and polyepoxides and polyphenols 137010-58-3DP, polymers with diimide-containing diepoxides and polyepoxides and polyphenols
 (manufacture of, as heat and thermal-shock-resistant potting compns.,
 for semiconductors)

L45 ANSWER 44 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1990:572882 HCPLUS Full-text
 DOCUMENT NUMBER: 113:172882
 ORIGINAL REFERENCE NO.: 113:29337/a,29340a
 TITLE: Fluorine-containing photoreactive polyimide. 6.
 Synthesis and properties of a novel photoreactive polyimide based on photo-induced acidolysis and the kinetics for its acidolysis
 AUTHOR(S): Omote, Toshihiko; Koseki, Ken'ichi; Yamaoka,
 Tsuguo
 CORPORATE SOURCE: Fac. Eng., Chiba Univ., Chiba, 260, Japan
 SOURCE: Macromolecules (1990), 23(22), 4788-95
 CODEN: MAMOBX; ISSN: 0024-9297
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 09 Nov 1990
 AB The polyimide (I) prepared from 5,5'-(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene)bis(1,3-isobenzofurandione) and 2,2-bis(3-amino-4-hydroxyphenyl)hexafluoropropane was soluble in aqueous base due to the presence of OH groups in the Ph rings of the diamine segment. Easy acidolysis of the protecting groups of the OH group was demonstrated with several model compds. that were protected by a number of acyl and alkoxy carbonyl groups. The tert-butoxycarbonyl (t-BOC) group showed the highest acidolysis rate in these tests. I protected with the t-BOC group was insol. in an aqueous base, but was easily converted to an alkaline-soluble polyimide by the acidolysis of the t-BOC group. The t-BOC-protected polyimide showed excellent pos.-working photoreactive characteristics in an aqueous base generator in the presence of (p-nitrobenzyl)-9,10-diethoxyanthracene-2-sulfonate as a photochem. acid generator, because of the polarity change induced by removing the t-BOC group. Studies of the kinetics of thermolytically deprotecting the polyimide indicated that the reaction was first order.
 IT 174177-00-5DP, reaction products with di-tert-Bu dicarbonate
 (preparation and acidolysis of, photoreactive properties in relation to)
 RN 174177-00-5 HCPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diy) {2,2,2-trifluoro-1-(trifluoromethyl)ethylidene} (1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diy) (6-hydroxy-1,3-phenylene) {2,2,2-trifluoro-1-(trifluoromethyl)ethylidene}] (4-hydroxy-1,3-phenylene)], 1,1-dimethyl ethyl carbonate (9CI) (CA INDEX NAME)

CRN 121334-09-6
 CMF (C34 H14 F12 N2 O6)n
 CCI PMS



CM 2

CRN 51300-90-4
 CMF C5 H10 O3

t-Bu-O-CO₂H

CC 35-8 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 74

IT Resists
 (photo-, pos.-working, hydroxyl
 group-containing fluoropolymer-polyimides for, protective group
 acidolysis in relation to)
 IT 129708-72-1DP, reaction products with di-tert-Bu dicarbonate
 174062-36-3DP, reaction products with di-tert-Bu dicarbonate
 174177-00-5DP, reaction products with di-tert-Bu dicarbonate
 (preparation and acidolysis of, photoreactive properties in relation to)

L45 ANSWER 45 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:441475 HCPLUS Full-text

DOCUMENT NUMBER: 113:41475

ORIGINAL REFERENCE NO.: 113:7069a, 7072a

TITLE: Fluorine-containing photoreactive polyimide: 4.
 The dependence of the content of pendant
 o-naphthoquinone diazide on the mechanism of
 photochemical reaction in a novel photoreactive
 polyimide

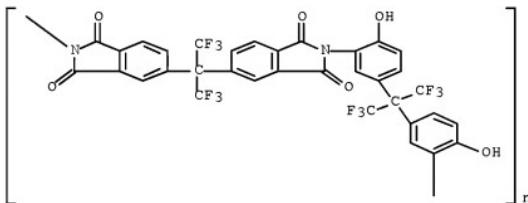
AUTHOR(S): Omote, Toshihiko; Mochizuki, Hideaki; Koseki,
 Kenichi; Yamaoka, Tsuguo

CORPORATE SOURCE: Fac. Eng., Chiba Univ., Chiba, 260, Japan

SOURCE: Polymer Communications (1990), 31(4),
 134-6

DOCUMENT TYPE: CODEN: POCOEF; ISSN: 0263-6476
 Journal

LANGUAGE: English
 ED Entered STN: 03 Aug 1990
 AB Novel photoreactive polyimides carrying o-naphthoquinone diazide (I) groups in the side chain were synthesized. These polyimides showed unique lithog. behavior; they were either pos.-working for aqueous base developer or neg.-working for organic solvent developer depending on the content of I. The reaction leading to the neg. working mode could be due to the low content of absorbed water, as well as the increased content of I in the polymer. The hydrophobicity of the polymer could be due to the presence of the fluorinated structure.
 IT 121334-09-6DP, esters with naphthoquinonediazidesulfonyl chloride
 (preparation and photoresist activity of)
 RN 121334-09-6 HCAPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)] (CA INDEX NAME)



CC 35-8 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 74
 IT Resists
 (photo-, pos.-working, fluorinated
 polyimides containing naphthoquinone azide groups for)
 IT 121334-09-6DP, esters with naphthoquinonediazidesulfonyl
 chloride 128087-29-6P
 (preparation and photoresist activity of)

L45 ANSWER 46 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1990:128961 HCAPLUS Full-text
 DOCUMENT NUMBER: 112:128961
 ORIGINAL REFERENCE NO.: 112:21661a,21664a
 TITLE: Fluorine-containing photoreactive polyimide. 5:
 A novel positive-type polyimide based on
 photoinduced acidolysis
 AUTHOR(S): Omote, Toshihiko; Koseki, Kenichi; Yamaoka, Tsuguo
 CORPORATE SOURCE: Fac. Eng., Chiba Univ., Chiba, 260, Japan
 SOURCE: Journal of Polymer Science, Part C: Polymer
 Letters (1990), 28(2), 59-64
 CODEN: JSCLE2; ISSN: 0887-6258
 DOCUMENT TYPE: Journal
 LANGUAGE: English

ED Entered STN: 31 Mar 1990

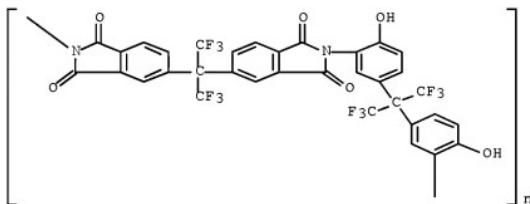
AB The pos.-type photoreactive polyimide with tert-butoxycarbonyl protecting groups which was prepared by the polycondensation of 5,5'-(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene)bis(1,3-isobenzofuranone) with 2,2-bis(3-amino-4-hydroxyphenyl)hexafluoropropane and reaction with di-tert-Bu dicarbonate showed excellent lithog. performance by being 24% deprotected after photoinduced acidolysis. The acidolytic facility of protecting groups as determined with model compds. corresponding to the polyimide repeat unit were MeCO > Me₂CHCO > Me₃CCO > MeOCO > Me₂CHOCO > Me₂CH₂COO for the alkoxy carbonylated series.

IT 121334-09-6D, tert-butoxycarbonyl-blocked

(lithog. properties of, hydroxyl group protection in relation to)

RN 121334-09-6 HCPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(6-hydroxy-1,3-phenylene)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](4-hydroxy-1,3-phenylene)] (CA INDEX NAME)



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35

ST protective group polyimide photoinduced acidolysis; lithog pos photoresist polyimide photoacidolysis
IT Polyimides, properties

(lithog. properties of, tert-butoxycarbonyl protective group in relation to)

IT Resists

(photo-, pos.-working, polyimide with tert-butoxycarbonyl protective groups for)

IT 121333-85-5D, tert-butoxycarbonyl-blocked 121334-09-6D, tert-butoxycarbonyl-blocked

(lithog. properties of, hydroxyl group protection in relation to)

IT 24424-99-5, Di-tert-butyl dicarbonate
(polyimides protected by, for pos.-working lithog.)

L45 ANSWER 47 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:571284 HCPLUS Full-text

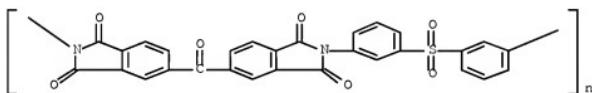
DOCUMENT NUMBER: 109:171284

ORIGINAL REFERENCE NO.: 109:28417a,28420a

TITLE: A study of polybenzimidazole/polyimide and

polybenzimidazole/poly(siloxane imide) segmented
 copolymer blends
 AUTHOR(S): Chen, Y. P.; Chen, D. H.; Arnold, C. A.; Lewis, D.
 A.; Pollard, J. F.; Graybeal, J. D.; Ward, T. C.;
 McGrath, J. E.
 CORPORATE SOURCE: Dep. Chem., Virginia Polytechnic Inst. State
 Univ., Blacksburg, VA, 24061, USA
 SOURCE: Polymer Preprints (American Chemical Society,
 Division of Polymer Chemistry) (1988),
 29(2), 370-2
 CODEN: ACPPAY; ISSN: 0032-3934
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 12 Nov 1988

AB The miscibility of the title blends, with the potential for high-temperature applications, over a wide range of compns. was ascertained by having clear, transparent films, and a single dielec. loss tangent peak at the glass temperature. Thermal stabilities of both blends were excellent except for the blend having a high siloxane content. Water absorption was dramatically reduced by incorporation siloxane segments into the blend system due to its migration to the surface and the formation of a water-repellent surface. The results from the permittivity measurements showed a possible route to efficiently process the title blends by microwave heating.
 IT 54571-77-6D, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-3,3'-diaminodiphenylsulfone copolymer, SRU, polymers with di-Me siloxanes, block
 (polybenzimidazole blends, miscibility and thermal and dielec. properties of)
 RN 54571-77-6 HCAPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)-1,3-phenylenesulfonyl-1,3-phenylene]
 (CA INDEX NAME)

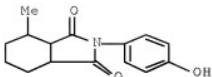


CC 36-5 (Physical Properties of Synthetic High Polymers)
 IT Heat-resistant materials
 (polybenzimidazole blends with polyimide or with segmented polyimide-siloxane copolymers, miscibility and thermal and dielec. properties of)
 IT 28825-50-5, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-3,3'-diaminodiphenylsulfone copolymer 28825-50-5D, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-3,3'-diaminodiphenylsulfone copolymer, polymers with di-Me siloxanes, block 54571-77-6, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-3,3'-diaminodiphenylsulfone copolymer, SRU 54571-77-6D, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-3,3'-diaminodiphenylsulfone copolymer, SRU, polymers with di-Me siloxanes, block
 (polybenzimidazole blends, miscibility and thermal and dielec. properties of)

L45 ANSWER 48 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1988:206356 HCAPLUS Full-text
 DOCUMENT NUMBER: 108:206356
 ORIGINAL REFERENCE NO.: 108:33905a,33908a
 TITLE: Water-thinned epoxy resin coating compositions
 INVENTOR(S): Karzijn, Willem; Kooimans, Petrus Gerardus
 PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B. V.,
 Neth.
 SOURCE: Eur. Pat. Appl., 10 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 244898	A2	19871111	EP 1987-200732 <--	19870415
EP 244898	A3	19901107		
EP 244898	B1	19920715		
R: BE, DE, ES, FR, GB, IT, NL, SE CA 1303276	C	19920609	CA 1987-534601 <--	19870414
ES 2032810	T3	19930301	ES 1987-200732 <--	19870415
JP 62267317	A	19871120	JP 1987-109951 <--	19870507
US 4769402	A	19880906	US 1987-48208 <--	19870511
PRIORITY APPLN. INFO.:			GB 1986-11328 <--	A 19860509

ED Entered STN: 11 Jun 1988
 AB Storage-stable compns., giving coatings with good stability under sterilization conditions, comprise epoxy resins in which the epoxide groups have been partially replaced with $-\text{CH}(\text{OH})\text{CH}_2\text{XZ1NHCO}_2\text{CO}_2-$ M+ [M+ = alkali metal or onium ion; X = S, O, NR, SONR (R = H, alkyl); Z1 = arylene; Z2 = C2-3 organic bridging group]. A solution of 169.8 g p-nonylphenol-modified epoxy novolak resin in BuOCH2CH2OH (I) 254.7, a solution of 122.7 g Epikote 1001 in I 184.1, N-(4-hydroxyphenyl)succinimide 49.7, bisphenol A 29.7 and I 39.7 g were heated to 120°, mixed with a 0.186-g solution of 0.093 g Me4+Cl- in H2O, and reacted at 120-140° for 18 h. A mixture of the resulting adduct 149.93, Me2NCH2CMe2OH 10.22, and H2O 116.5 g was refluxed 5 h to give a binder with acid value 39 mg KOH/g and solids content 36%. A coating containing this binder 55.4, Cymel 1116 5.0, and H2O 106.3 g was anodically deposited on a Sn-coated can, giving a 15-μ coating with good appearance and stability to sterilization (soaking in 121° H2O for 90 min) and pasteurization (soaking in 2% lactic acid-containing H2O at 80° for 0.5 h).
 IT 114450-96-3D, reaction products with epoxy resins and crosslinking agents
 (coatings, storage-stable and sterilizable)
 RN 114450-96-3 HCAPLUS
 CN 1H-Isoindole-1,3(2H)-dione, hexahydro-2-(4-hydroxyphenyl)-4-methyl-
 (CA INDEX NAME)



IC ICM C08L063-00
 ICS C09D003-58
 ICA C08G059-14; C09D005-44
 CC 42-9 (Coatings, Inks, and Related Products)
 IT 80-05-7D, reaction products with imides and epoxy resins and crosslinking agents 9003-08-1D, Cymel 1116, reaction products with imides and epoxy resins 10187-21-0D, N-(4-Hydroxyphenyl)succinimide, reaction products with epoxy resins and crosslinking agents 25068-38-6D, Epikote 1001, reaction products with imides and crosslinking agents 114355-89-4D, reaction products with imides and crosslinking agents 114450-96-3D, reaction products with epoxy resins and crosslinking agents 114450-97-4D, reaction products with epoxy resins and crosslinking agents (coatings, storage-stable and sterilizable)

L45 ANSWER 49 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:139330 HCPLUS Full-text

DOCUMENT NUMBER: 106:139330

ORIGINAL REFERENCE NO.: 106:22747a,22750a

TITLE: Polyester molding composition containing a phthalimide plasticizer

INVENTOR(S): Birum, Gail H.; Mathis, Thomas C.; Stolk, Richard D.

PATENT ASSIGNEE(S): Monsanto Co. , USA

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

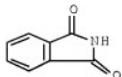
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4639480	A	19870127	US 1985-736004	19850517
			<--	
PRIORITY APPLN. INFO.:			US 1985-736004	19850517
			<--	

ED Entered STN: 01 May 1987

AB Title composition comprises 40-95 parts PET having intrinsic viscosity (η_{inh}) ≥ 0.4 dL/g (0.5% solution in 60:40 PhOH- tetrachloroethane, 25°) and 0.5-15 parts phthalimide (R attached at N of ring, R = C12-30 alkyl, alkenyl or alkoxy alkyl). A molding composition containing poly(ethylene terephthalate) (η_{inh} 0.66 dL/g) 67, N n-octadecyl phthalimide (I) 2.0, Suryln 8660 0.67, Araldite ECN 1273 0.33, and glass fiber (chopped) 30.0 parts was extruded at 260° and molded into a test piece having heat distortion temperature 214, Izod impact 12 ft lbs/in., tensile strength 20,100 psi, and elongation 2.4%, vs. 208, 12.3, 19,700, and 2.3, resp., using neopentyl glycol dibenzoate instead of I and 202, 14.2, 18,900, and 2.0, resp., without plasticizer.

IT 85-41-6b, alkyl or alkylene derivs.
 (plasticizer, for polyester moldings)

RN 85-41-6 HCPLUS
 CN 1H-Isoindole-1,3(2H)-dione (CA INDEX NAME)



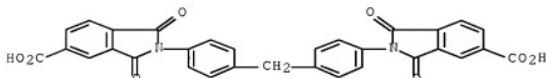
IC ICM C08K005-34
 INCL 524104000
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38
 ST polyethylene terephthalate molding compn; polyester alkylene terephthalate molding; phthalimide plasticizer polyester molding; ionomer nucleation agent polyester; epoxy novolak chain extender polyester; glass fiber reinforcement polyester
 IT 85-41-6D, alkyl or alkylene derivs. 20332-12-1 27646-77-1, N-Dodecylphthalimide 107513-46-2 107513-81-5 161278-78-0D, Jeffamine M360, phthalimide derivs.
 (plasticizer, for polyester moldings)

L45 ANSWER 50 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1981:31515 HCPLUS Full-text
 DOCUMENT NUMBER: 94:31515
 ORIGINAL REFERENCE NO.: 94:5201a,5204a
 TITLE: Thermosetting resin compositions
 PATENT ASSIGNEE(S): Mitsubishi Electric Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55092727	A	19800714	JP 1979-836 -->	19790106
PRIORITY APPLN. INFO.:			JP 1979-836 -->	A 19790106

ED Entered STN: 12 May 1984
 AB Heat-resistant resins are prepared from 30-55% novolak condensates, 45-70% imide ring-containing dicarboxylic acid-epoxy resin reaction products, and hardening catalysts. Thus, p,p'-dimethoxydimethylidiphenyl ether 1162 g, p-C6H5C6H4OH 936, and ferric chloride 0.2 g were heated at 180° for 3 h with removal of MeOH, dissolved in toluene to concentration 50%, mixed (1500 g) with 1500 g imide ring-containing epoxy resin prepared by heating p,p'-diphenylmethane bis(trimellitic acid imide) 273, Epikote 828 950, and benzyltriethylammonium chloride 0.6 g at 200° for 1 h, mixed with 7.5 g BF3.2-methyldimidazole, coated on aminosilane-treated glass fabric, dried at 110° for 10 min to form prepregs, degassed at 170°, molded at 80 kg/cm² for 30 min, and heated at 200° for 10 h to prepare a laminate having bending strength 51.51 kg/mm² and 48 kg/mm² initially and after 1000 h at 240°, resp. 4645-32-5D, polymers with dimethoxydimethylidiphenyl ether, Epikote 828, and phenylphenol

(heat-resistant)
 RN 4649-32-5 HCAPLUS
 CN 1H-Isoindole-5-carboxylic acid, 2,2'-(methylenedi-4,1-phenylene)bis[2,3-dihydro-1,3-dioxo- (CA INDEX NAME)

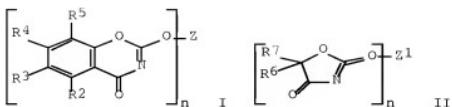


IC C08G059-14
 CC 36-3 (Plastics Manufacture and Processing)
 IT 92-69-3D, polymers with dimethoxydimethylidiphenyl ether, Epikote 828, and diphenylmethane bis(trimellitic imide) 2509-26-4D, polymers with Epikote 828, diphenylmethane bis(trimellitic imide), and phenylphenol 4649-32-5D, polymers with dimethoxydimethylidiphenyl ether, Epikote 828, and phenylphenol 2506-38-6D, polymers with dimethoxydimethylidiphenyl ether, diphenylmethane bis(trimellitic imide), and phenylphenol (heat-resistant)

L45 ANSWER 51 OF 53 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1980:172475 HCAPLUS Full-text
 DOCUMENT NUMBER: 92:172475
 ORIGINAL REFERENCE NO.: 92:27819a,27822a
 TITLE: Radiation-sensitive mixture useful in preparing relief images
 INVENTOR(S): Sander, Juergen; Buhr, Gerhard; Ruckert, Hans
 PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 37 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2829512	A1	19800117	DE 1978-2829512 <--	19780705
EP 6626	A2	19800109	EP 1979-102168 <--	19790629
EP 6626 R: BE, CH, DE, FR, GB, IT, NL, SE JP 55126236	B1 A	19821215 19800929	JP 1979-84469 <--	19790705
JP 62039421 US 4250247	B A	19870822 19810210	US 1979-54809 <--	19790705
PRIORITY APPLN. INFO.:			DE 1978-2829512 <--	19780705

ED Entered STN: 12 May 1984
 GI



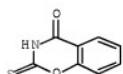
AB A radiation-sensitive mixture suitable for the preparation of relief images contains: (1) a compound which yields an acid upon exposure to actinic radiation; (2) a compound whose solubility in a liquid developer is increased by the action of acid and which contains ≥ 1 acid-cleavable N-acyliminocarbonate group and has a composition corresponding to formulas $(ROC(:NCO)O)nZ$, I, or II ($R, R_1 = \text{alkyl, aryl}; n = 1-3; Z = \text{an } n\text{-valent aliphatic, cycloaliph., or aromatic radical}$; 2 of the radicals R, R_1 , and Z may combine to form a heterocyclic ring; $R_2-R_5 = \text{H, halo, alkyl, alkoxy, aryl, aryloxy, acyl, acyloxy, carbalkoxy, NO}_2$; some of the R_2-R_5 groups may combine to form a ring; $Z_1 = n\text{-valent aromatic radical}$; $R_6, R_7 = \text{H, alkyl}$). Optionally, the material may contain a polymeric H₂O-insol. binder. This radiation-sensitive material is used as the recording layer on a suitable support and imagewise exposed so that the solubility in liquid developer is increased and the exposed part is thereby removed to give a relief image. Thus, an electrolytically roughened and anodized Al film was whirler coated with a solution containing MeCOEt 94.6, cresol-HCHO Novolak 4, 2-(4-(2,4-dichlorophenoxy)phenoxy]-5,5-dimethyl-1,3-oxazolin-4-one 1.2, 2-(4-ethoxy-1-naphthyl)-4,6-bis(trichloromethyl)-s-triazine 0.2, and Crystal Violet 0.01 weight % to give a coating of 1.5-2.0 g/m² (dry). The material was exposed through a line and grating pattern to a 5-kW metal halide lamp at 110 cm for 20 s after which a strong cyan image was produced. The image was developed with a solution containing Na₂SiO₃, Na₃PO₄, and NaH₂PO₄ in salt-free H₂O and after 40 s the exposed part was removed to leave the blue colored unexposed area as a printing pattern. The plate thus obtained was inked in the usual manner and used in a printing press. After 50,000 copies were made the plate was still intact.

IT 10021-35-9D, derivs.

(reactions of, with chlorine)

RN 10021-35-9 HCPLUS

CN 4H-1,3-Benzoxazin-4-one, 2,3-dihydro-2-thioxo- (CA INDEX NAME)



IC G03C001-49; G03F001-02

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

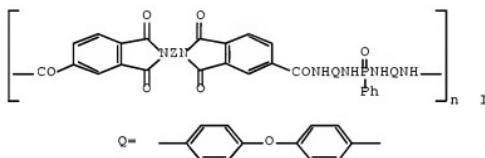
IT Printing plates

(relief, radiation-sensitive materials containing N-acyliminocarbonate groups for production of)

IT 2346-24-9D, derivs. 10021-35-9D, derivs.

(reactions of, with chlorine)

L45 ANSWER 52 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1980:6987 HCPLUS Full-text
DOCUMENT NUMBER: 92:6987
ORIGINAL REFERENCE NO.: 92:1313a,1316a
TITLE: Synthesis and study of phosphorus-containing
poly(amido imides)
AUTHOR(S): Mashkevich, S. A.; Maimakov, T. P.; Zhubanov, B.
A.
CORPORATE SOURCE: Inst. Khim. Nauk, Alma-Ata, USSR
SOURCE: Izvestiya Akademii Nauk Kazakhskoi SSR, Seriya
Khimicheskaya (1979), 29(4), 56-60
CODEN: IKAKAK; ISSN: 0002-3205
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 12 May 1984
GT



AB One class of title polymers (**I**; Z = (CH₂)₆, Q), prepared by polycondensation of the bis(trimellitimide chlorides) with PhPO(NHNH₂)₂ [72092-33-2] in N-methylpyrrolidone at room temperature, were self-extinguishing but had slightly lower thermal stability than similar polyamide-polyimides containing no P. Other polyamide-polyimides with P in side chains, obtained by reaction of PC13 with copolymers of the bis(trimellitimide chlorides) with 4,4'-oxybis(1,2-phenylenediamine), were hygroscopic and much less thermally stable but still self-extinguishing.

IT 72100-03-9DP, reaction products with phosphorus trichloride
72100-18-ODP, reaction products with phosphorus trichloride
(preparation and properties of)

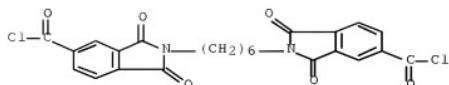
RN 72100-03-9 HCAPLUS

CN 1H-Isoindole-5-carbonyl chloride, 2,2'-(1,6-hexanediyl)bis[2,3-dihydro-1,3-dioxo-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 37710-66-0

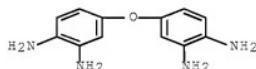
CMF C24 H18 Cl2 N2 O6



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



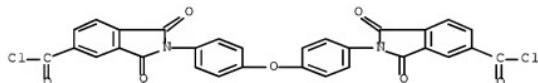
RN 72108-18-0 HCPLUS

CN 1H-Isoindole-5-carbonyl chloride, 2,2'-(oxydi-4,1-phenylene)bis[2,3-dihydro-1,3-dioxo-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 17012-83-8

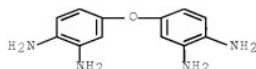
CMF C30 H14 Cl2 N2 O7



CM 2

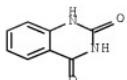
CRN 2676-59-7

CMF C12 H14 N4 O

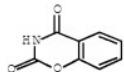


CC 35-3 (Synthetic High Polymers)
 ST fire resistant polyamide polyimide; phosphorus conta
polyamide polyimide
 IT Fire-resistant materials
 (phosphorus-containing polyamide-polyimides)
 IT Polyimides, properties
 (polyamide-, fire and heat resistance of)
 IT Polyanides, properties
 (polyimide-, fire and heat resistance of)
 IT 72099-29-7 72099-32-2 72100-04-0 72100-10-8
 (fire and heat resistance of)
 IT 72100-03-9DP, reaction products with phosphorus trichloride
 72108-18-0DP, reaction products with phosphorus trichloride
 (preparation and properties of)

L45 ANSWER 53 OF 53 HCPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1976:534213 HCPLUS Full-text
 DOCUMENT NUMBER: 85:134213
 ORIGINAL REFERENCE NO.: 85:21440h,21441a
 TITLE: Production of highly heat-resistant film patterns
 from photoreactive polymeric precursors. Part 1.
 General principle
 AUTHOR(S): Rubner, Roland
 CORPORATE SOURCE: Forschungslab., Siemens A.-G., Erlangen, Fed. Rep.
 Ger.
 SOURCE: Siemens Forschungs- und Entwicklungsberichte (1976), 5(2), 92-7
 CODEN: SFEBBL; ISSN: 0370-9736
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ED Entered STN: 12 May 1984
 AB Soluble polymeric precursors of highly heat-resistant classes of compds., with chain segments linked by bridges that carry amide groups possess, adjacent to these bridges, photoreactive groups R* bound in an ester-like fashion. As a consequence they can be converted to crosslinked film patterns by photomechanical means. Because of their special chemical structure these film patterns can subsequently be converted into highly heat-resistant layered structures suitable for use in photolithog., simply by tempering. In this process the photoreactive groups and the crosslinking bridges are set free as alcs. and polyalcs. resp. They can be volatilized by a suitable choice of tempering conditions. Highly heat-resistant compds. include polyimides, polyamidoimides, polyester imides, polyhydantoinimides, polyquinoxazinobindionimides, polybenzoxazinodiones, polyquinazolinodiones, and polyisoindoloquinazolinodiones. The chemical reactions involved in the change from soluble precursor through photochem. crosslinked intermediates to heat-resistant final products of these compds. are shown. Suitable photoreactive groups R* are derived from alcs. with functional groups capable of dimerizing or polymerizing. Allyloxy, methacrylateethoxy, and maleimidomethoxy groups are especially suited. The photoreactive polymers can be handled with the usual methods of photoresist technol. Specific material properties can be obtained, such as high photosensitivities and good processing properties combined.
 IT 86-96-4D, 2,4(1H,3H)-Quinazolinedione, polymers
 2037-95-8D, 2H-1,3-Benzoxazine-2,4(3H)-dione, polymers
 (heat-resistant film patterns from photoreactive)
 RN 86-96-4 HCPLUS
 CN 2,4(1H,3H)-Quinazolinedione (CA INDEX NAME)



RN 2037-95-8 HCAPLUS
 CN 2H-1,3-Benzoxazine-2,4(3H)-dione (CA INDEX NAME)



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 IT Printing plates
 (photoresists containing photoreactive polymeric precursors for)
 IT 86-96-4D, 2,4(1H,3H)-Quinazolininedione, polymers
 2037-95-8D, 2H-1,3-Benzoxazine-2,4(3H)-dione, polymers
 30354-60-0D, 7H,9H-Benzo[1'',2'':3,4:4'',5'':3',4']dipyrrolo[2,1-
 b:2',1'-b']diquinazoline-7,9,16,18-tetrone, polymers
 (heat-resistant film patterns from photoreactive)

=> d his nofile

(FILE 'HOME' ENTERED AT 14:09:23 ON 25 APR 2008)

FILE 'HCAPLUS' ENTERED AT 14:09:36 ON 25 APR 2008
 L1 1 SEA ABB=ON PLU=ON US20060019191/PN

FILE 'REGISTRY' ENTERED AT 14:10:01 ON 25 APR 2008
 L2 5 SEA ABB=ON PLU=ON (100346-90-5/B1 OR 20871-03-8/B1 OR
 4297-75-0/B1 OR 681430-23-9/B1 OR 681430-24-0/B1)
 L3 STR
 L4 50 SEA SSS SAM L3
 L5 STR L3
 L6 50 SEA SSS SAM L5
 L7 9572 SEA ABB=ON PLU=ON 591.160/RID
 L8 261285 SEA ABB=ON PLU=ON 333.79/RID
 L9 2056 SEA ABB=ON PLU=ON 591.266/RID
 L10 348787 SEA ABB=ON PLU=ON 591.100/RID
 L11 262078 SEA ABB=ON PLU=ON 591.50/RID
 L12 22679 SEA ABB=ON PLU=ON 1784.14/RID
 L13 QUE ABB=ON PLU=ON (L7 OR L8 OR L9 OR L10 OR L11 OR L12)
 L14 902437 SEA ABB=ON PLU=ON (L7 OR L8 OR L9 OR L10 OR L11 OR L12)
 L15 50 SEA SUB=L14 SSS SAM L5
 L16 272323 SEA SUB=L14 SSS FUL L5
 L17 2 SEA ABB=ON PLU=ON L16 AND L2
 SAV L16 TEMP EOF629/A

FILE 'HCAPLUS' ENTERED AT 15:47:49 ON 25 APR 2008
 L18 2845 SEA ABB=ON PLU=ON L16/D OR L16/DP
 L19 1 SEA ABB=ON PLU=ON L18 AND L1
 L20 7 SEA ABB=ON PLU=ON L18(L)PHENOLIC?
 E PHENOLIC RESINS, PROPERTIES/CT
 L21 4964 SEA ABB=ON PLU=ON "PHENOLIC RESINS, PROPERTIES"+PFT,NT/CT
 L22 3 SEA ABB=ON PLU=ON L18 AND L21
 L23 852 SEA ABB=ON PLU=ON L18 AND PRP/RL
 L24 12 SEA ABB=ON PLU=ON L23 AND LITHOG?
 L25 9 SEA ABB=ON PLU=ON L18(L)PHENOL?
 L26 156 SEA ABB=ON PLU=ON L18 AND PHENOL?
 L27 4 SEA ABB=ON PLU=ON L26 AND LITHOG?
 L28 23 SEA ABB=ON PLU=ON L20 OR L22 OR L24 OR L25 OR L27
 L29 4 SEA ABB=ON PLU=ON L18(L)NOVOLAK?
 L30 20 SEA ABB=ON PLU=ON L18 AND NOVOLAK?
 E POSITIVE PHOTORESISTS/CT
 L31 4462 SEA ABB=ON PLU=ON "POSITIVE PHOTORESISTS"+PFT,NT/CT
 E PRINTING PLATES/CT
 L32 19964 SEA ABB=ON PLU=ON "PRINTING PLATES"+PFT,NT/CT
 L33 24 SEA ABB=ON PLU=ON L18 AND (L31 OR L32)
 L34 55 SEA ABB=ON PLU=ON L28 OR L29 OR L30 OR L33
 L35 36 SEA ABB=ON PLU=ON L34 AND (1840-2003)/PRY,AY,PY
 L36 496 SEA ABB=ON PLU=ON L18 AND POLYMER?/SC,SX
 L37 638 SEA ABB=ON PLU=ON L18(L)PRP/RL
 L38 230 SEA ABB=ON PLU=ON L37 AND L36
 L39 1 SEA ABB=ON PLU=ON L38 AND L31
 L40 0 SEA ABB=ON PLU=ON L38 AND L32
 L41 1 SEA ABB=ON PLU=ON L38 AND LITHOG?
 L42 26 SEA ABB=ON PLU=ON L38 AND ?RESIST?
 L43 26 SEA ABB=ON PLU=ON (L39 OR L40 OR L41 OR L42)
 L44 18 SEA ABB=ON PLU=ON L43 AND (1840-2003)/PRY,AY,PY

10/531,629

L45

53 SEA ABB=ON PLU=ON L35 OR